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FINANCIAL MANAGEMENT FOR AVIATION SQUADRONS

by

LT John S. Pugh, USN

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by

John Stanley Pugh

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Thesis approved by

Michael Gallagher, A. B., LL. B.

Assistant Professor of Accounting

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INTRODUCTION

The operating forces of the military services have often been plagued with overlapping and conflicting instructions from higher commands. The diverse information needed by various bureaus and the difficulty of coordinating at the Pentagon level sometimes result in requests for identifical information, but in different formats and time frames. Information systems are designed for the planners at the top; hence they rarely assist the manager at the operating level. Thus, the actual fighting forces are forced to continually collect and report information that is of marginal value to them.

This dichotomy of interests is most acute in the financial area. The law provides checks on the expenditure of government money by separation of responsibility at the top. Each division needs information to satisfy its legal requirements and issues instructions to the operating forces to provide the necessary information. These separate lines of authority and requirements unfortunately meet at the operating level.

A portion of the financial expenditures of the Navy is examined in this paper with particular emphasis on the requirements of the operating forces that actually spend the money. These expenditures are known to Congress as Operation and Maintenance, Navy, appropriation 171804, subhead .1911; to top Navy planners as budget project 01 funds; and to Navy aviation squadrons as Bravo money. To the American taxpayer, it is $180 million a year

provided primarily to purchase gasoline and oil for use in Navy aircraft.

The problem analyzed in this paper is the result of a top-down approach to designing financial management information systems which forces the aviation squadrons to accumulate data and complete forms which aid only higher command levels. At the same time, each squadron is left on its own to devise (or not devise) an effective system of managing the money it is spending. As Robert Anthony stated the problem, three years before he was appointed Assistant Secretary of Defense (Comptroller):

> What the system should do is make the operating manager at all levels concerned about--worried about--the resources that he uses. . . . /An/ internal source of difficulty is the tendency of systems planners to go at the job backwards. Many efforts start at the Pentagon or major command level and are overly concerned with the management needs at that level. The resulting system is designed more to meet these needs than the needs of operating executives in the field, where the money is actually spent. A consequence of the top-down approach is that it is necessarily piecemeal because the complexities at the Pentagon level are so great that it is not feasible to take all of them into account in designing a single system.
>
> Sometime, might it not be interesting to try the opposite approach? . . . Concentrate on the question: What management tools are really helpful in planning and controlling the operations of this base/or squadron/? It might just turn out that the information really helpful at base level provides all the building blocks for information and control needed at higher levels. [1]

Dr. Anthony is currently seeking information systems that provide data that are useful to the lower levels of command in the Department of Defense, where the nation's defense dollars are actually spent. This report presents such a system for Navy fleet aviation squadrons. The approach is

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[1] Robert N. Anthony, "New Frontiers in Defense Financial Management," The Federal Accountant (June, 1962), pp. 23, 23.

many-sided and involves the following elements:

1. Interviews with key officials in the Office of the Chief of Naval Operations, who need cost data to plan and monitor the Navy's Flying Hour Program, and officials in the Bureau of Naval Weapons, who need cost data to satisfy legal and budgetary requirements.

2. An analysis of the applicable instructions promulgated by the Chief of Naval Operations, the Chief, Bureau of Naval Weapons,[2] the Commander Naval Air Force, U.S. Atlantic Fleet, and the Commander Naval Air Force, U.S. Pacific Fleet, with particular emphasis on the requirements of the issuing office and the burden placed on the squadrons.

3. A questionnaire sent to the material officers of all Navy fleet aviation squadrons to determine squadron practices and provide a forum for suggesting changes in funding procedures, squadron financial management methods, data collection and reporting.

4. The experience of the author as a material officer in an aviation squadron during 1962 to 1964.

These elements are combined to portray the system as it presently operates and also to determine the needs of each level of command for information. The actions and requirements at the squadron level are examined

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[2] On May 1, 1966, the Bureau of Naval Weapons will become the Naval Ordnance Systems Command. Functions of the Bureau of Naval Weapons described in this paper will be performed by the new Air Systems Command.

in detail. From this, an improved system is designed from the squadron up.

The following chapter provides historical background for discussion of the problem.

CHAPTER I

HISTORY

In the retrenchment of the military following World War II, the Navy sought to increase the monetary responsibility of its operational commanders. This led, in 1947, to procedures for direct funding of aircraft gas and oil expenditures. Previously, these expenses were not charged to an individual squadron, detailed reports of expenditure were not necessary, and limitations were not usually placed on the gas and oil expenditures of each squadron. Someone higher up the chain of command was responsible for the adequacy and distribution of funds.

With the introduction of direct funding, however, all squadron commanders became directly responsible for their gas and oil expenditures. Limitations were effected by giving a squadron a quarterly allotment; and detailed accounting and reporting procedures for the allotment were established within each squadron. This allotment was called the Bravo allotment and could be expended only for gas and oil used in aircraft.

Gradually, other items were brought into the squadron commanders' realm of responsibility by including them under the Bravo allotment. Flight clothing, radio tubes, consumable office supplies, ball bearings, and other consumable aircraft parts were added, but the majority of aircraft parts remained in appropriation purchase accounts and were not directly funded.

In fact, 90 per cent of aircraft parts were never placed in a Bravo category, and the squadrons still do not have to account for expenditures on these parts.

Other expenditures were made by the squadrons but charged to different specific accounts. This hindered operations as transfers could not be made from a well-funded account to an account that was running low. This restriction was particularly evident in Bravo and TAD funds. TAD (temporary additional duty) money is used for travel and related expenses. When a squadron deployed or changed duty stations, TAD funds would be expended while Bravo would not be used as the squadron would not fly during this period. Unexpended Bravo funds could not be transferred into the TAD account and financing additional travel was impossible.

This situation was rectified by combining Bravo, Flight TAD, Marine Aviation Expeditionary Equipment, and Aviation Consolidated Allowance funds in the single appropriation subhead . 1911. The Navy may now make trade-offs among these areas. The intent is that this one fund will provide the money to fly, maintain, and move aviation squadrons of the Navy and Marine Corps. It does, with these restrictions:

1. Money is provided for only the first two levels of maintenance (squadron and station maintenance but not overhaul).

2. Subsistence, capital charges, and shore-based support are funded separately. [1]

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[1] Interview with Mr. G. W. Martin, Programs and Budget Division, Bureau of Naval Weapons, January 24, 1966.

A parallel development occurred in the organization of squadrons and their supporting units which affected the allocation and accounting of funds. Prior to World War II, each squadron performed its own intermediate maintenance. This resulted in a great duplication of tools and equipment and, as the War soon proved, required more trained men than were available. This problem was solved by the creation of FASRON's, or Fleet Aircraft Service Squadrons. As the name implies, these squadrons provided maintenance services to a number of operating squadrons. This changed funding to the extent the FASRON's purchased parts for the repair work they performed so some portion of each operating squadron's Bravo allotment was given to the FASRON.

After the war, FASRON's presented an organizational problem as they were separate from, but stationed on, air stations. This forced the air stations to maintain their own shops to work on station aircraft. This involved duplication and unbeneficial competition. In 1959, the FASRON's were combined with the station aircraft maintenance organization to form a station aircraft maintenance department, or AMD. Most of the maintenance that had been performed by the FASRON reverted to a squadron responsibility using AMD shops, equipment, and talent where necessary. Parts were purchased by the squadron and it received its full Bravo allotment.[2]

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[2] Ibid.

In 1963, under Department of Defense Directive, the Navy established three distinct levels of maintenance, as follows:

1. Organizational maintenance-- performed by an operating squadron on a day-to-day basis and not requiring shop facilities. Includes pre-flight and post-flight inspections, periodic minor inspections, and maintenance work performed in or on the airplane with a minimum of tools.

2. Intermediate maintenance--shop-type test and repair performed at centrally located facilities. This work is accomplished in AMD shops, principally by squadron personnel temporarily assigned to the station.

3. Depot maintenance--aircraft overhaul performed at an industrial facility.[3]

This reorganization necessitated a reallocation of Bravo funds from the squadrons to the AMD for the parts used by AMD in intermediate maintenance work on squadron aircraft. Although information was solicited from the squadrons to determine the dollar amount that should be diverted from squadrons to the AMD's, the actual decision was made at the Bureau of Naval Weapons level on the basis of an experienced guess. Ten million dollars was switched in Fiscal Year 1964 and this proved to be within 5 per cent of the subsequent expenditure for that year.

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[3]Department of the Navy, Bureau of Naval Weapons Instruction 4700.2A, The Naval Aircraft Maintenance Program, October 2, 1964.

This diversion of funds was formalized in 1965, when:

> CNO /Chief of Naval Operations/ requested BUWEPS /Bureau of Naval Weapons/ to establish a separate budget project under Aircraft Operations appropriations subheads for funding consumable materials (Navy Stock Fund or local purchase) used in component repair at the aircraft intermediate maintenance level. Aircraft operational and organizational /squadron/ maintenance expenses are to continue under existing budget project 01.2 . . .
>
> New budget project numbers 50.2 . . . have been established to cover intermediate maintenance.[4]

Thus, the Bravo allotment was split into two categories. The air stations receive budget project 50.2 money which is expended for consumable parts used in the aircraft. The squadron continues to receive project 01.2 funds which finance aviation gas and oil, flight clothing, consumable office supplies, aerial film, liquid oxygen, material and services purchases at other than Navy activities.

This separation of financial responsibility resulted in a great change in the material practices of the squadron. Several years ago, all parts were ordered by the squadron from station or shipboard supply. This entailed a squadron material office of four to twelve enlisted men to research stock numbers, type requisitions, maintain records, accomplish follow-ups on undelivered material, and physically transfer the material from station supply to the squadron shops. The implementation of three-level maintenance and separate funding transferred these functions to the station AMD. There followed a reduction in the personnel allowance of squadron material offices

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[4] Ibid., p. 13-3.

to one enlisted man. This has increased the importance of simplifying Bravo procedures as additional work cannot be accomplished by other men in the material office as before, but just increases the workload of the single enlisted man.

This brief history illustrates the many changes that have occurred in the maintenance and material areas of aircraft squadron operations. The changes in specific reports and procedures have been even more frequent and reflect the interest in this area and the belief that the system needs improvement.

CHAPTER II

THE SQUADRON IN THE NAVY COMMAND STRUCTURE

The smallest element of Naval Aviation which functions as a unit and for which costs are maintained is the aircraft squadron. It is small enough to be easily deployed; large enough to accomplish a significant mission. Depending on type of aircraft flown, a squadron maintains from 12 to 25 planes. The officer complement is 15 to 50 and the enlisted men number 150 to 300. Most of the officers are pilots, or flight officers, who also supervise the maintenance work performed by the enlisted men on the aircraft.

Although squadrons are flooded with instructions from higher authority on procedures and reports, they are left to their own internal management methods in important areas. The commanding officer is responsible for using the resources of the squadron to effect training and achieve a high state of readiness, although the type and quantity of resources he can use is determined by higher commands. But the decision as to which resources are most valuable is his. Rationally, the commanding officer needs to determine the resource (planes, parts, people, money, time) that is the limiting factor in obtaining readiness (ability to perform the military mission) and maximize the use of this resource. In reality, changes in operational requirements and other factors preclude this rationale of an approach to the problem.

The Bravo money that a squadron receives is granted by the Commander Naval Air Force, U.S. Atlantic Fleet,[1] in the form of an operating target for each quarter. The amount granted is a compromise between the squadron's request and the total money available. Legal deficiency responsibility is retained by COMNAVAIRLANT but the squadron commanding officer is vitally concerned with any possible over-expenditure of his operating target.

In keeping with the squadron-oriented approach, this discussion of the chain of command has started at the lowest level and will continue up from the squadron. Figure 1 presents the chain of command and the flow of Bravo money schematically.

Above the squadron in the administrative chain of command is the Commander Fleet Air (COMFAIR) and his staff. This staff usually is physically located at the same air station as the squadron. In the funding and maintenance areas, the staff is often needed to solve problems arising between the squadron and the air station. The Commander Fleet Air is also the Commander Naval Air Bases. This recent combination of duties provides a commander immediately above the squadron and the air station who exercises control over both. His staff provides detailed procedures for funding and maintenance interactions between the aircraft squadron and the station aircraft maintenance department.

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[1] This discussion is based on the Atlantic Fleet organization. A parallel organization exists in the Pacific. Bravo money is also distributed by the Commander Naval Air Training Command, the Commander Naval Air Reserve Training, and the Bureau of Naval Weapons.

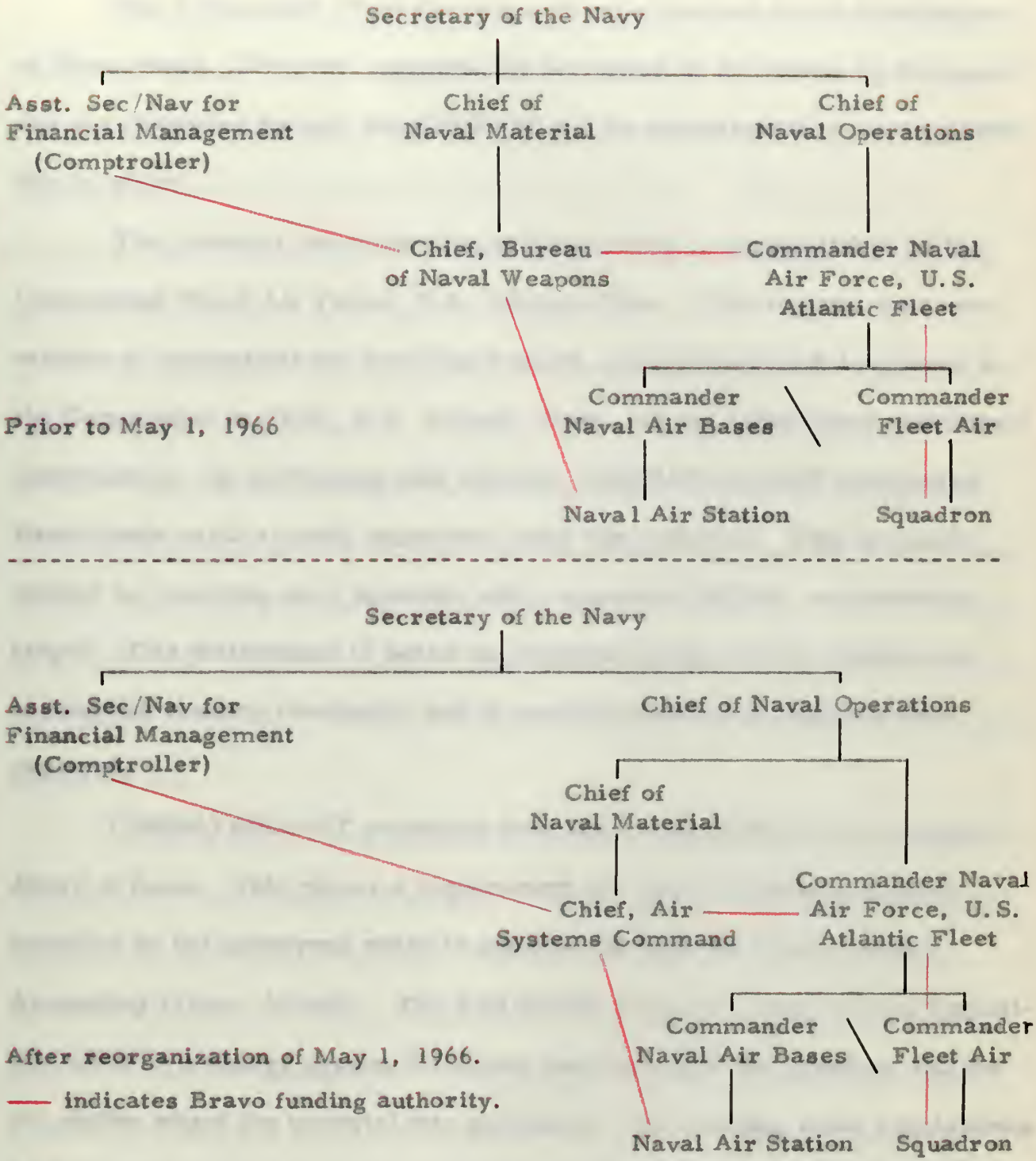

Fig. 1. --Simplified administrative chain of command

The Commander Fleet Air is not directly involved in the distribution of Bravo funds. However, requests for increases or decreases by the squadron are channeled through the COMFAIR and an endorsement or recommendation is added.

The principal administration of Bravo funds is accomplished by the Commander Naval Air Force, U.S. Atlantic Fleet. This logistic-type commander is responsible for providing trained, equipped aircraft squadrons to the Commander in Chief, U.S. Atlantic Fleet, and his subordinate operational commanders. In performing this function, COMNAVAIRLANT distributes Bravo funds to all aircraft squadrons under his command. This is accomplished by providing each squadron with a quarterly OPTAR, or operating target. This distribution is based on projected needs of each squadron to accomplish training continually and to provide military capabilities when deployed.

COMNAVAIRLANT maintains final legal responsibility for overexpenditure of funds. This places a requirement for close monitoring of funds expended by the squadrons which is satisfied through the Fleet Aviation Accounting Office, Atlantic. The FAAOLANT receives a copy of each requisition which is a charge against the Bravo fund from both the squadron and the air station where the material was purchased. By matching these requisitions, FAAOLANT provides formal accounting of funds for COMNAVAIRLANT.[2]

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[2]Department of the Navy, Commander Naval Air Force, U.S. Atlantic Fleet Instruction 7310.11, Fleet Aviation Financial Regulations (June 23, 1965), p. III-1.

Directing all the operating forces of the Navy is the Chief of Naval Operations (CNO). On his staff are officers who plan for the future flying requirements of the Navy. This includes the determination of Bravo costs and the monitoring of the Navy Flying Hour Program. CNO directs the Bureau of Naval Weapons how to allot the Navy's Bravo money. This procedure will be discussed more fully in Chapter III.

The Bureau of Naval Weapons resides in the "producer" side of the Navy's bilinear organization.[3] (See Fig. 1.) As a resource manager, BUWEPS provides the weapons and aircraft required by the operating forces. BUWEPS also manages the money for these weapon systems, including Bravo money. The Congressional appropriation 171804, subhead .1911, is allotted by BUWEPS to COMNAVAIRLANT and the other commands for distribution to the aviation squadrons. Funds are allotted directly to air stations to purchase aircraft parts.

BUWEPS has a requirement for legal documents to account for the expenditure of funds under its control. The process of obtaining those documents is discussed in Chapter III. The requirement to maintain the legal records is prescribed by the Comptroller of the Navy, the Assistant Secretary for Financial Management. The Navy Comptroller Manual prescribes detailed accounting procedures to maintain records and controls necessary to satisfy the requirements of the Anti-Deficiency Act.

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[3]Fred Korth, "The Challenge of Navy Management," United States Naval Institute Proceedings (August, 1963), p. 29.

The Navy Comptroller Manual also provides procedures for accounting at the COMNAVAIRLANT and squadron level. These will be included in the discussion of reporting requirements of the squadron in the next chapter.

CHAPTER III

REVIEW OF POLICY AND INSTRUCTIONS

Each aviation squadron receives instructions concerning Bravo expenditures, records, or reporting from a minimum of six sources: the Comptroller of the Navy; the Chief of Naval Operations; the Bureau of Naval Weapons; the Bureau of Supplies and Accounts;[1] COMNAVAIRLANT or COMNAVAIRPAC; and the local Commander Fleet Air. Other commands, such as air stations, commanders of carrier air groups, and commanders of fleet air wings, often publish further instructions on Bravo funds. All of these instructions cover the same subject, and there is a great amount of duplication. Changes are frequent and correcting or revising each of the instructions is a slow process, so there is generally disagreement among the various instructions. The first problem of the squadron material officer (who is responsible for maintaining the Bravo records) is to determine which instructions to follow and which are out of date.

The basic policies and legal responsibilities of the Navy in accounting for public funds are expressed in the Navy Comptroller Manual:

> In accordance with policy of the Secretary of the Navy that the accounting effort to be performed by units of the operating forces be kept to an absolute minimum, consistent with adequate fund control,

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[1] The reorganization of May 1, 1966, will change the Bureau of Supplies and Accounts to the Supply Systems Command.

and that fund administration responsibility be placed at the highest possible level, the type commander has been assigned the responsibility for fund administration for ships.

Fleet Air Force Commanders are responsible for financial management of fleet aviation squadrons and units under their administrative control. This responsibility includes financial planning, administration of allotted funds, review and analysis of the rate of obligation and expenditure, and performance review and reporting. In order to permit discharge of this responsibility, the appropriate fleet aviation accounting office will maintain the official allotment accounting records.[2]

The Navy Comptroller Manual also addresses itself to records on the squadron level:

A memorandum record of financial transactions, Squadron Operating Target Record, will be maintained for each squadron optar. The Squadron Operating Target Record will provide adequate data for local financial management and for preparing Part 1 of the Aircraft Operating Cost Report.[3]

In this instance the Manual describes a report sent by the squadrons to the Bureau of Naval Weapons. The Manual also refers to reports between the squadrons and the Chief of Naval Operations and from the Fleet Aviation Accounting Offices to the squadrons.

Each squadron is required to maintain a copy of Volume VIII, "Operating Forces Funding and Accounting," of the Naval Comptrollers Manual. There are many command levels between the Office of the Comptroller and the squadrons, however, and changes in the Manual lag far behind corresponding changes made by these commands. Thus, the often-out-of-date,

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[2]Department of the Navy, Office of the Comptroller, Navy Comptroller Manual (NAVEXOS P-1000, Vol. 8), para. 081102, 081111.

[3]Ibid., para. 84203. The Aircraft Operating Cost Report is no longer submitted by the squadrons.

very general, Navy Comptroller Manual offers little aid to the squadron in managing Bravo funds.

The Bureau of Naval Weapons (BUWEPS) fulfills its legal and budgetary responsibilities through the use of transmittals and the Status of Fund Authorization, NAVCOMPT Form 2025. The transmittals are prepared by the aviation squadrons. They include a covering letter with copies of all requisition documents constituting a charge against the squadron Bravo funds and a continuous adding machine tape of all the documents showing the total obligations for the period. These are mailed to the Fleet Aviation Accounting Office every fifteen days. The squadron documents are machine matched with duplicate documents that are sent by the station supply issuing the material.

The FAAO's (Atlantic and Pacific) prepare NAVCOMPT 2025 reports from the accounting data provided by the squadron transmittals. This report enables BUWEPS to maintain necessary legal appropriation records. It contains only total expenditures, however, and is not a management tool. Cost information by aircraft model is provided by the Aircraft Operation and Cost Report (BUWEPS Instruction 7310. 3B) which is prepared quarterly by the Fleet Aviation Accounting Offices and sent to BUWEPS. It replaces a detailed report the squadrons submitted before July 1, 1965. This change has greatly simplified squadron procedures and has shifted the reporting requirement to the FAAO's where automatic data processing equipment is available.

The squadron refers to the Bureau of Supplies and Accounts Manual, Volume III, to obtain information regarding the use of flight packets for purchase of fuel and material when away from the home base. These charges are all Bravo charges and the procedures are quite detailed, but most squadrons are not required or authorized to maintain a copy of this Manual.[4] Therefore, the information is repeated in Squadron Material Officer Handbooks published by COMNAVAIRLANT and COMNAVAIRPAC.

The Chief of Naval Operations (CNO) requires cost data that provide a performance measure. This is reflected in OPNAV Instruction 3710.30, Report of Flying Hours. The Instruction requires submission to CNO of a semimonthly message and a monthly report by the squadron.

The history of the CNO flying hour report indicates the close tie between Bravo funds and the Navy's flying hour program. It was initiated in 1962 to provide timely information on the flying program hours and cost to answer questions of the Secretary of Defense. The Air Force had flying information for each ten-day period, so the original Navy instruction required each aviation squadron to report its Bravo expenses and flight hours for each ten-day period directly to the Chief of Naval Operations.

The report had to be sent by the squadron within twenty-four hours of the end of each ten-day period. Accurate information was often not available that soon from the air station supply, or squadron detachments in other

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[4]Department of the Navy, Commander Naval Air Force, U.S. Pacific Fleet Instruction P4400.4D, Squadron Material Officer's/Supply Officer's Handbook (June 12, 1964), p. 8.

locations. The report was costly to the Navy as it involved over 12,000 messages a year to CNO plus two or three copies of each message to intermediate commands.

Several modifications have been made to the original instruction. Presently, only two messages are required a month (titled Flying Hours Report, OPNAV 3710-2) and the squadrons have two working days to send the message (four days if the squadron supports detachments). An additional report has been recently added to squadron requirements, however. The Flying Hour Cost Report (OPNAV 3710-3) lists the Bravo charges for each model of aircraft operated and is mailed to CNO by the tenth of each month. For squadrons operating a single model of aircraft, the information on the OPNAV 3710-3 duplicates the information sent in the OPNAV 3710-2 messages.

The information derived from the message reports is used at OPNAV to provide current status on the Navy's flying hour program. A computer run is made each month and the following information is printed for every squadron:

- Total annual programmed flight hours, Bravo cost, and aircraft inventory.
- Projected flight hours and Bravo cost to date.
- Actual flight hours and Bravo cost to date.
- Aircraft on board currently and average on board since July 1.
- Bravo cost per flight hour, actual and projected.
- Utility rate (flight hours per aircraft), actual and projected.

The projections are not simply straight line rates but curves based on past history and predictions from the major commands. Factors such as deployments, increased reserve flying in the summer, and aircraft model transitions are included in the programmed predictions to provide a valid base for comparing actual results.[5]

The individual squadron information is summarized by major command (COMNAVAIRLANT, COMNAVAIRPAC, Commander Naval Air Training Command, Commander Naval Air Reserve Training, and BUWEPS activities). Total flight hours and Bravo expenditures are also compiled for the complete Navy, thus providing a one-line summary of the current Navy program position.

Precise cost data associated with the operation of each model of aircraft are provided by the monthly report 3710-3. This Flying Hour Cost Report is used with the flight activity data reported through the Aircraft Accounting System to satisfy the requirement to develop operating cost data.[6] This additional report is required to provide more exact data than can be provided in the limited time given the squadrons to send the message report. The mailed report also contains fewer errors than the message report, which is sometimes garbled in transmission.

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[5]Interview with Commander W. W. Morton, Program Analysis Section, Office of the Deputy Chief of Naval Operations (Air), November 22, 1965.

[6]Department of the Navy, OPNAV Instruction 3710.30, Report of Flying Hours (June 2, 1965), p. 1.

The duplication of instructions concerning Bravo funds is indicated by a comparison of the references used in the Fleet Aviation Financial Regulations issued by the Commander Naval Air Force, U.S. Atlantic Fleet, and the references in Aviation Unit Financial Regulations published by the Commander Naval Air Force, U.S. Pacific Fleet. Although addressed to the same types of aviation squadrons and issued at the same time for the same purpose, the instructions list quite different references:

COMNAVAIRLANT	COMNAVAIRPAC
(a) NAVCOMPT Manual, Vol. II	(a) NAVCOMPT Manual, Vol. II
(b) NAVCOMPT Manual, Vol. III	(b) BUSANDA Manual, Vol. III
(c) COMNAVAIRLANTINST 4235.7	(c) OPNAVINST 3710.6C
(d) NAVCOMPT Manual, Vol. VIII	(d) BUWEPSINST 7820.1D
(e) BUWEPSINST 7303.9	(e) NAVCOMPT Manual, Vol. VIII
(f) BUSANDAINST 4020.5	(f) OPNAVINST 3710.29
(g) OPNAVINST 3710.30[7]	(g) OPNAVINST P5442.2I
	(h) BUWEPINST 04700.3
	(i) BUWEPINST 4700.2A
	(j) BUWEPINST 7820.5
	(k) COMNAVAIRPAC INST P1320.1F
	(l) BUWEPSINST 7820.4
	(m) COMNAVAIRPACINST 7820.1A[8]

Only the Navy Comptroller Manual and OPNAVINST 3710.30 are referenced by both instructions (OPNAVINST 3710.30 is a recent revision of OPNAVINST 3710.29). This lack of agreement is indicative of the redundancy of the instructions available. Most of these instructions are also available to the squadrons and they must each make a similar choice of which to follow and

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[7] COMNAVAIRLANT Instruction 7310.1I, op. cit., p. 1.

[8] Department of the Navy, COMNAVAIRPAC Instruction 7303.11B, Aviation Unit Financial Regulations (June 4, 1965), p. 1.

which to ignore. A problem is caused by a failure of all issuing commands to update duplicating instructions when changes occur. Instructions are usually consistent when initially issued.

The actual COMNAVAIRLANT and COMNAVAIRPAC instructions are not as different as their respective references would indicate. They provide to the fleet aviation squadrons the detailed accounting information, financial regulations, and reporting procedures contained in the NAVCOMPT, OPNAV, BUWEPS, and BUSANDA Instructions.

The instructions are too long to describe in detail but both contain background information on appropriations, subheads, bureau control numbers, bureau project numbers, operating targets, functional account numbers, fund codes, and purchase requests. They contain identical lists of financial responsibility and the same general accounting instructions. Under "Budget Project 01 (Bravo), Aircraft Operating Funds," specific funding, record and file keeping, and reporting procedures are delineated.

The principal difference in the administration of funds is that COMNAVAIRPAC allows the squadrons to carry forward unexpended funds from quarter to quarter while COMNAVAIRLANT requires squadrons to return excess funds at the end of each quarter. Under this latter procedure the squadrons must spend all the funds granted or lose the money.

Throughout the two instructions the emphasis is on accounting for funds after they have been spent and reporting these expenditures to higher authority. No procedures are prescribed for internal reporting of Bravo fund status.

No indication is given of how the required reports can aid squadron financial management. The only mention of fund management other than not overspending the squadron operating target is the responsibility for "the effective and economical utilization of funds and material."[9]

These instructions provide information to the squadrons concerning Bravo accounting and reporting. But instructions often mean one thing to the writer and another to the reader. The next chapter examines the actions taken in the squadrons based on their interpretation of the instructions examined in this chapter.

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[9]COMNAVAIRLANT Instruction 7310. 1I, op. cit., p. II-1, and COMNAVAIRPAC Instruction 7303. 1B, op. cit., p. II-1.

CHAPTER IV

QUESTIONNAIRE RESULTS

In order to design an improved system for managing Bravo funds at the squadron level, it was necessary to determine the practices and attitudes existing in aviation squadrons. This objective was fulfilled by mailing questionnaires to the material officers of all 209 Navy aviation squadrons in the Pacific and Atlantic Fleets.

The questionnaire (Appendix A) was formulated in three principal areas of interest:

- Internal Bravo fund reporting
- Squadron interest in Bravo expenditures
- Forms used for internal reporting.

Twenty questions were multiple choice for ease of replying. The final question was open-end and provided a forum for suggestions, complaints, or changes desired in the present system. The material officers were also requested to enclose copies of any forms used for internal reporting of Bravo fund status.

The questionnaire was reviewed by the Head, Program Analysis Section, Office of the Deputy Chief of Naval Operations (Air).[1] No provision was

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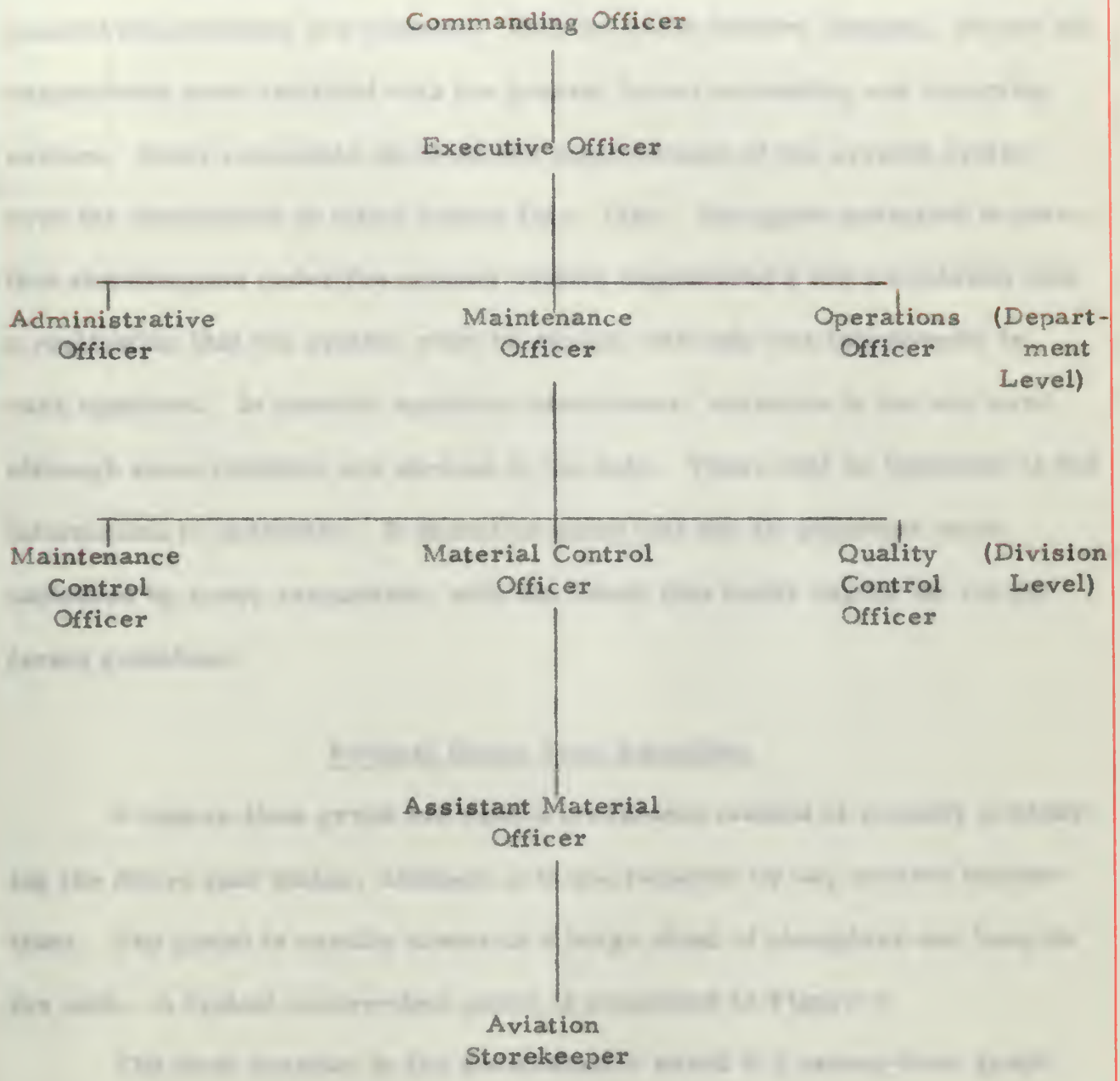
[1] Interview with Cdr. W. W. Morton, January 13, 1966.

made for identification of the squadrons responding, and the letter of transmittal assured anonymity to the material officers. This was considered necessary to obtain objectivity as some questions reflected the attitude of the commanding officer and other officers in the squadron.

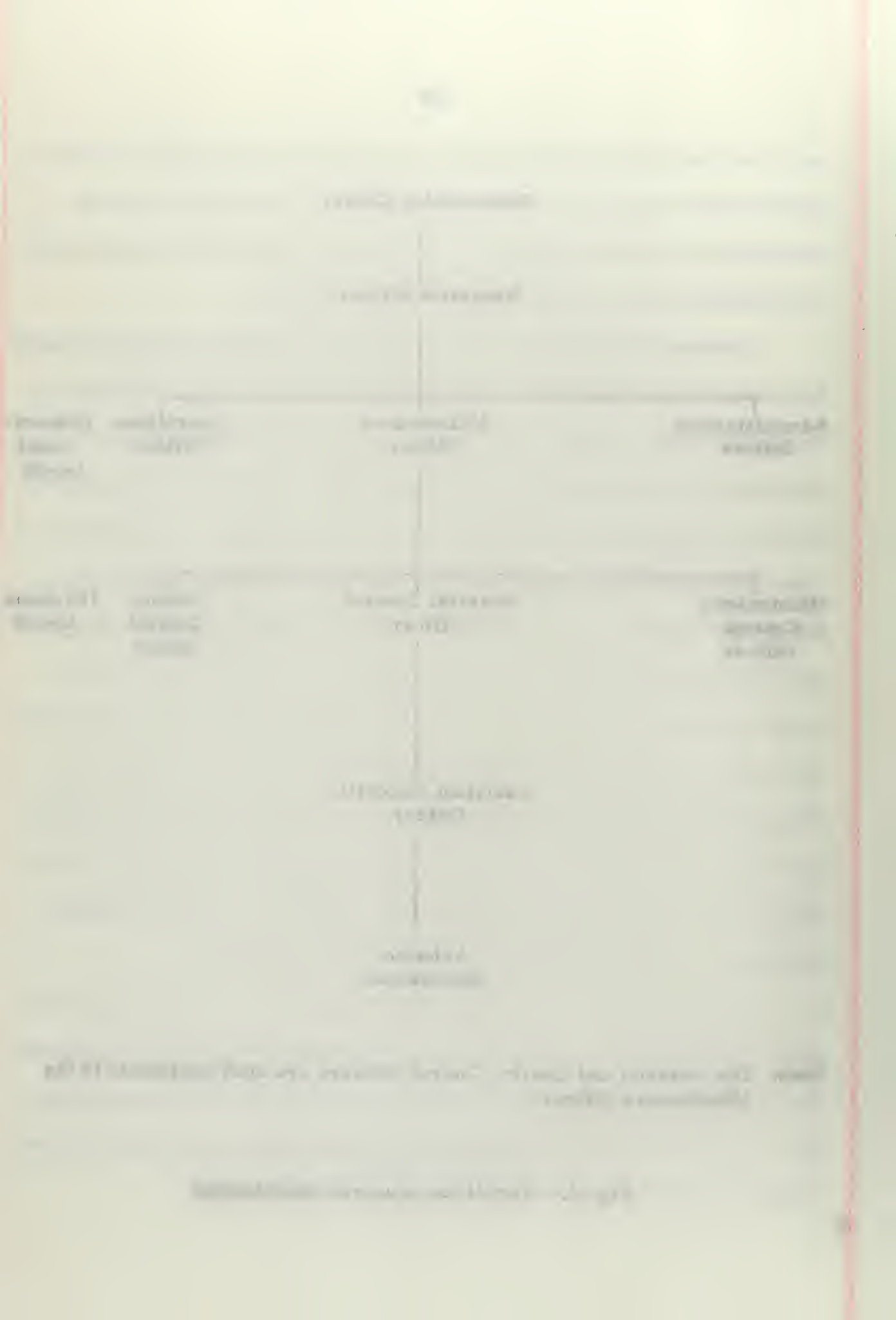
Because of the nature of some questions, the questionnaire was mailed directly to the material officers rather than to the commanding officers, as is standard Navy practice. In most squadrons the material officer is a Lieutenant or Lieutenant (Junior Grade) midway through his first three-year tour in the squadron following completion of flight training. His knowledge of material practices is gained from working with the former material officer for several months and reading the various instructions. At most bases a provision is made to meet periodically with base supply personnel to solve problems and to discuss new procedures. Working under the material officer is usually an assistant grooming for the job and one enlisted aviation storekeeper with five to ten years' experience. The aviation storekeeper usually maintains all the records as the material officer is primarily a pilot or aviation observer and is not in the office most of the time. Figure 2 shows the position of the material officer in the squadron organization.

One hundred and twenty-three questionnaires were returned and tabulated. Comments on many questionnaires indicated that they were completed by the material officers rather than by the assistants or aviation storekeepers. The officers gave indication of being interested in the survey, and over a third contributed suggestions toward improving the system.



Note: The Material and Quality Control Officers are staff assistants to the Maintenance Officer.

Fig. 2. --Simplified squadron organization



Before an examination of the results of the individual questions, a few general observations are possible. Despite some desired changes, almost all respondents were satisfied with the present Bravo accounting and reporting system. Many comments stressed the improvement of the present system over the procedures in effect before July, 1965. The great reduction in aviation storekeepers under the current system engendered a few complaints plus a realization that the system must be simple with only one storekeeper in each squadron. In specific squadron procedures, variation is the key word, although some patterns are obvious in the data. These will be indicated as the information is presented. It should be noted that not all questions were answered by every respondent, with the result that totals varied for the different questions.

Internal Bravo Fund Reporting

A money-time graph has been a traditional method of visually presenting the Bravo fund status, although it is not required by any current instructions. The graph is usually drawn on a large sheet of plexiglass and hung on the wall. A typical money-time graph is presented in Figure 3.

The first question in the questionnaire asked if a money-time graph was maintained in the material office or in the commanding officer's office. The answers were:

Per Cent	Number	
50	62	maintained graph in material office
54	66	maintained graph in commanding officer's office
29	36	maintained graph in both offices
25	31	did not maintain a graph.

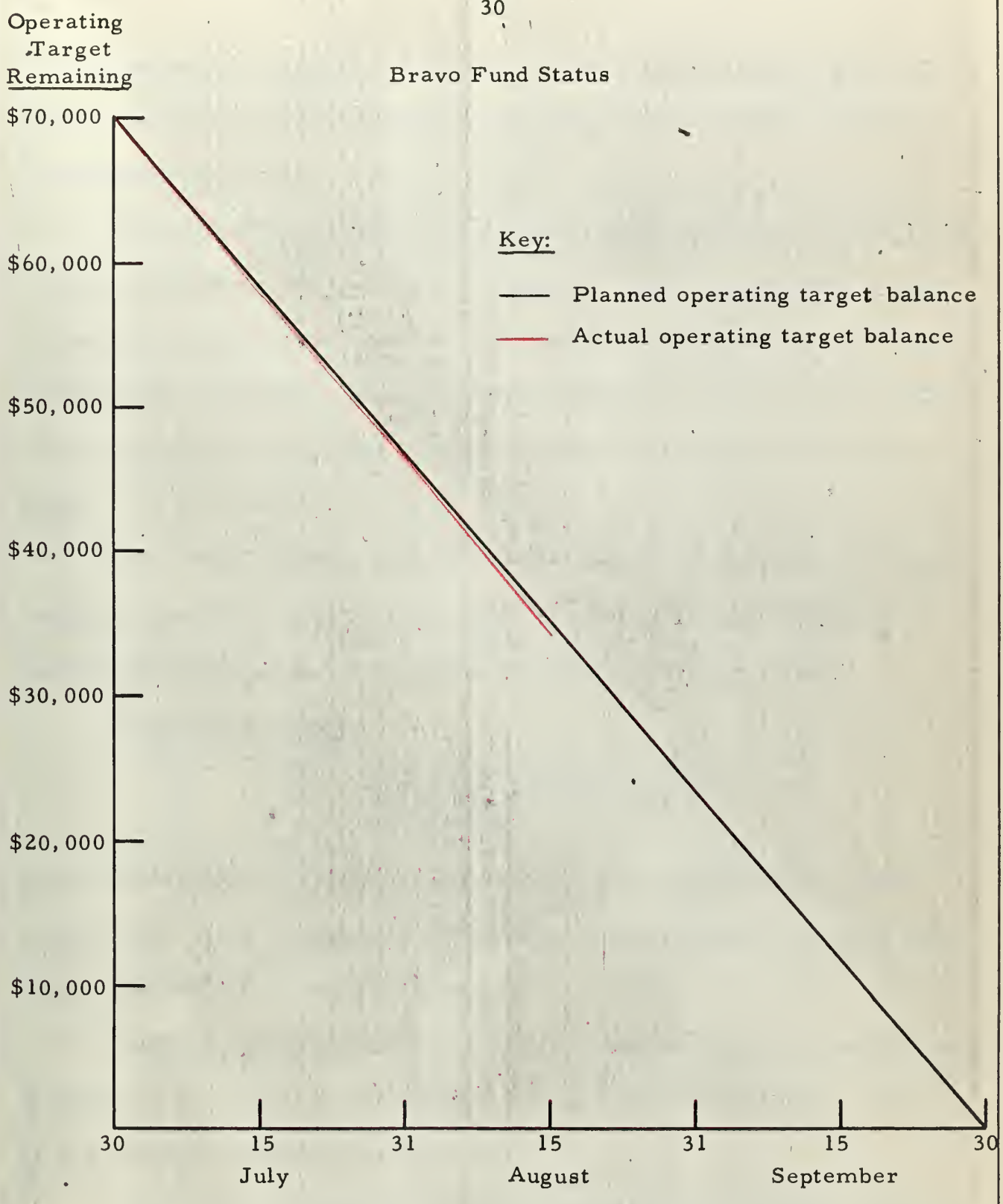


Fig. 3. --Money-time graph

All respondents answered this question. The money-time graph appears to be a prevailing financial tool with 92 squadrons, or 75 per cent, indicating they maintain a graph.

The value of maintaining a money-time graph in both the material and commanding officer offices is open to question. The graph provides a quick approximation of the squadron financial position and is most valuable to the commanding officer. The material officer, however, should be aware of the exact status of the Bravo fund. This information is provided by a detailed form.

The second question pertained to the use of a detailed form to report internally the Bravo status. Such a form is not specified and most are mimeographed forms that the individual squadrons have developed.

Per Cent	Number	
70	86	used a detailed form
28	34	did not use a detailed form
2	3	no response

Some officers indicated that they used a typed memorandum to convey the information. Fifty-one forms were received from squadrons and representative copies are included in Appendix B.

Analysis indicates that 90 per cent of the squadrons either maintained a money-time graph or used a detailed form for internal reporting. Over half of the squadrons used both methods.

The frequency of updating the money-time graph or internal form was determined to be:

Per Cent	Number	
53	65	updated semi-monthly (when the OPNAV 3710-2 is prepared)
19	24	updated weekly
14	17	updated daily (5 additional squadrons updated daily near the end of the quarter)
6	7	updated monthly
8	10	no response.

Two questions pertained to the cost-per-hour computation. This is a convenient method of determining performance. The Bravo money obligated is divided by the hours flown during the same period to determine a Bravo cost-per-flight hour. This is usually fairly constant for long periods and among squadrons flying the same type of aircraft on the same missions. The frequency of informing the commanding officer of the current cost per hour was:

Per Cent	Number	
51	63	reported cost per hour semi-monthly
15	19	reported cost per hour weekly
10	12	reported cost per hour daily
7	8	reported cost per hour monthly
2	3	reported cost per hour quarterly
9	11	did not report cost per hour
6	7	no response.

Additionally, the squadrons were asked if the cost-per-hour computation was further broken down into avgas, avlube, and other costs. The results:

Per Cent	Number	
64	79	did not compute the individual costs per hour
34	42	did compute the cost per hour of avgas, avlube, and other expenses
2	2	no response.

Question 5 requested if the Bravo money remaining was expressed in dollars, flight hours, or both. The intent of this question was to determine the extent the squadrons translate bulk information into something usable at the squadron level. The author believes it is not as useful for a commanding officer to know he has $100,000 left as it is to know he can fly 2,000 more flight hours. However, a third of the material officers did not convert dollar amounts into flight hours. The answers:

Per Cent	Number	
62	77	expressed the money remaining in both dollars and flight hours
36	44	expressed the money remaining in dollars only
2	2	expressed the money remaining in flight hours only.

To determine the relationship of internal and external reporting, the material officers were asked whether internal reports to the commanding officer were related to external reports.

Per Cent	Number	
78	96	considered the external and internal reports related.
15	18	considered their internal reports unrelated to external reports
7	9	no response.

Two questions in the first section determined the attitude of the squadrons concerning the proper fund balance to plan for at the end of each quarter and at the end of the fiscal year. It is vital that the squadron not over-expend its allotment, especially at the end of the fiscal year. But it is difficult to be assured of accounting for all the money as flight packets

are issued to plane crews throughout the year. These contain stubs which are blank checks on the squadron's account. Sometimes these stubs are misplaced by flight crews and the material officer does not know how much money has been spent. Furthermore, many squadrons feel they need to have a sum of money to spend on fuel for any special commitments they receive at the end of the quarter or year.

Balanced against these reasons to maintain a slight buffer at the end of the period is the desire to spend all the money the squadron is given. This is a combination of a desire to accomplish the most training possible and a fear that if the squadron does not spend the money this year they will not get as much next year. This fear is not justified and can lead to squandering money just to spend it. The fear is nurtured, however, by the yearly messages of the major commands which caution the squadrons that money not spent at the end of the fiscal year is lost to the Navy. The questionnaire indicated that the squadrons strive for these balances at the end of each quarter:

Per Cent	Number	
39	48	plan for a balance of zero
9	11	plan for a balance around $100
10	12	plan for a balance around $200
9	11	plan for a balance around $500
9	11	plan for a greater balance ($1,000, $2,000, 10%)
24	30	no response.

There was an observable difference between Pacific squadrons, who keep the money remaining at the end of the quarter, and Atlantic squadrons, who turn the excess money into COMNAVAIRLANT and do not usually receive it

in subsequent quarters. Many Pacific squadrons do not make an effort to spend the money at the end of the quarter as they know they will have it to spend in later quarters.

The second question concerned the money remaining at the end of the fiscal year. The squadron practices are:

Per Cent	Number	
45	55	plan for a balance of zero
4	5	plan for a balance around $100
3	4	plan for a balance around $200
8	10	plan for a balance around $500
5	6	plan for a greater balance ($1,000, $2,000)
35	43	no response.

Twenty-nine respondents did not answer either question. This may indicate that many squadrons do not plan for a specified balance. Some indicated that they did not have a goal but spent what they needed to accomplish their training or they really had no control over expenditures. This latter was indicated to be true of shipboard operations where the squadrons flew when they were told to fly and had little control over the rate or amount of expenditures.

The last question in the first section inquired if the squadrons were using an illegal device. This is the practice of obligating money "on the books" without actually typing a stub and purchasing something. This procedure is a way of keeping money in the squadron at the end of the quarter instead of returning it to COMNAVAIRLANT. Many respondents pointed out that this was prohibited by the Bravo instructions.

The question was directed only to the squadrons that strive for a zero balance at the end of the quarter. Of those squadrons:

62 type stubs
10 do not type stubs.

Several squadrons who do use this device guiltily claimed they "don't juggle the books."

Squadron Interest in Bravo Expenditures

An attempt to assess the attitude of the squadron resulted in four questions in this section. The material officers were first asked to indicate the number of times the subject of reduced aircraft operating costs had been mentioned in all officers' meetings the past year. All officers' meetings are held in the squadrons once or twice a week and provide a forum to present new information or to discuss topics of interest. They are the ideal and principal forum for the commanding officer or other officers to discuss reduced aircraft operating costs. The variance in the use of this opportunity was great:

Per Cent	Number	
27	34	never mentioned reduced costs during the year
15	18	mentioned reduced costs twice in a year
13	16	mentioned reduced costs four times
12	15	mentioned reduced costs six times
10	12	mentioned reduced costs ten times
11	13	mentioned reduced costs fifteen times
3	4	mentioned reduced costs over fifteen times
9	11	no response.

Of the squadrons answering this question, 30 per cent never discussed reduced costs in a year, and 61 per cent discussed the subject only once a

quarter or less.

A companion, but more direct, question asked the material officers to describe their commanding officers' interest in Bravo expenditures. The results:

Per Cent	Number	
7	8	described interest as slight
37	46	described interest as moderate
52	64	described interest as great
4	5	no response.

An analysis of these two questions indicates that the material officers were loathe to describe the interest of their commanding officer as moderate or slight, although the answer to the first question indicated it was not great. Thirteen of the responses that described the interest of the commanding officer in Bravo expenditures as great also indicated the subject of cost reduction had never been mentioned in an officers' meetings during the past year.

A third question to determine squadron interest in Bravo expenditures was asked in the first section of the questionnaire. It requested if the commanding officer required a breakdown of the miscellaneous costs into flight clothing, hand tools, office supplies. The answers were:

Per Cent	Number	
34	42	did require a breakdown
64	79	did not require a breakdown
2	2	no response.

The majority of the commanding officers did not desire to know what the Bravo money was spent for. Several material officers indicated that they

keep these records for their own information. The others apparently do not determine the specific items for which Bravo money is spent. This could be interpreted as less than a great interest by the commanding officer in Bravo expenditures.

The identity of the squadron officers who mentioned reduced costs in all officers' meetings was obtained. In the 78 squadrons where reduced costs were discussed, the following officers participated:

43	commanding officers spoke an average of three times a year on cost reduction
18	executive officers spoke an average of three times
18	operations officers spoke an average of two times
29	maintenance officers spoke an average of three times
52	material officers spoke an average of four times.

Several interesting patterns emerge. Executive officers, who are groomed to take over the commanding officer billet after a year, spoke on cost reduction less than half as often as the commanding officers. The need for economy does not seem to be of concern until they occupy the number-one position in the squadron. On the other hand, the operations officers, who are the third senior officer but not in the chain of command between the commanding and material officers (see Fig. 1), spoke on reduced costs as often as the executive officers. The material officers spoke most often on reduced costs, and this is their responsibility.

Forms Used for Internal Reporting

The key question in this section asked the material officers to indicate the principal methods used to inform their commanding officers of Bravo

expenditures and balance. They were asked to rank all the methods employed in order of importance. The results were:

		Number Ranking Method					
	Total	First	Second	Third	Fourth	Fifth	Sixth
Money-time graph	80	32	31	9	6	2	0
OP-501	87	6	22	42	15	2	0
Optar	57	4	17	15	15	6	0
Squadron form	90	68	12	8	0	1	1
Comfair form	10	0	4	1	2	3	0
Transmittals	75	10	26	20	13	5	1

Figure 4 presents the information graphically. A clear pattern emerges. Squadrons which use an internal squadron form rate it the principal vehicle for informing the commanding officer. The money-time graph was rated first by most squadrons that did not use a squadron form and second by those that did use such a form.

The OP-501 is an external report that all squadrons submit. Most squadrons considered it the third most useful method of informing the commanding officer although it contains no details. The semi-monthly transmittals of requisitions give the commanding officer an opportunity to examine the items purchased (if he desires) and was ranked fourth.

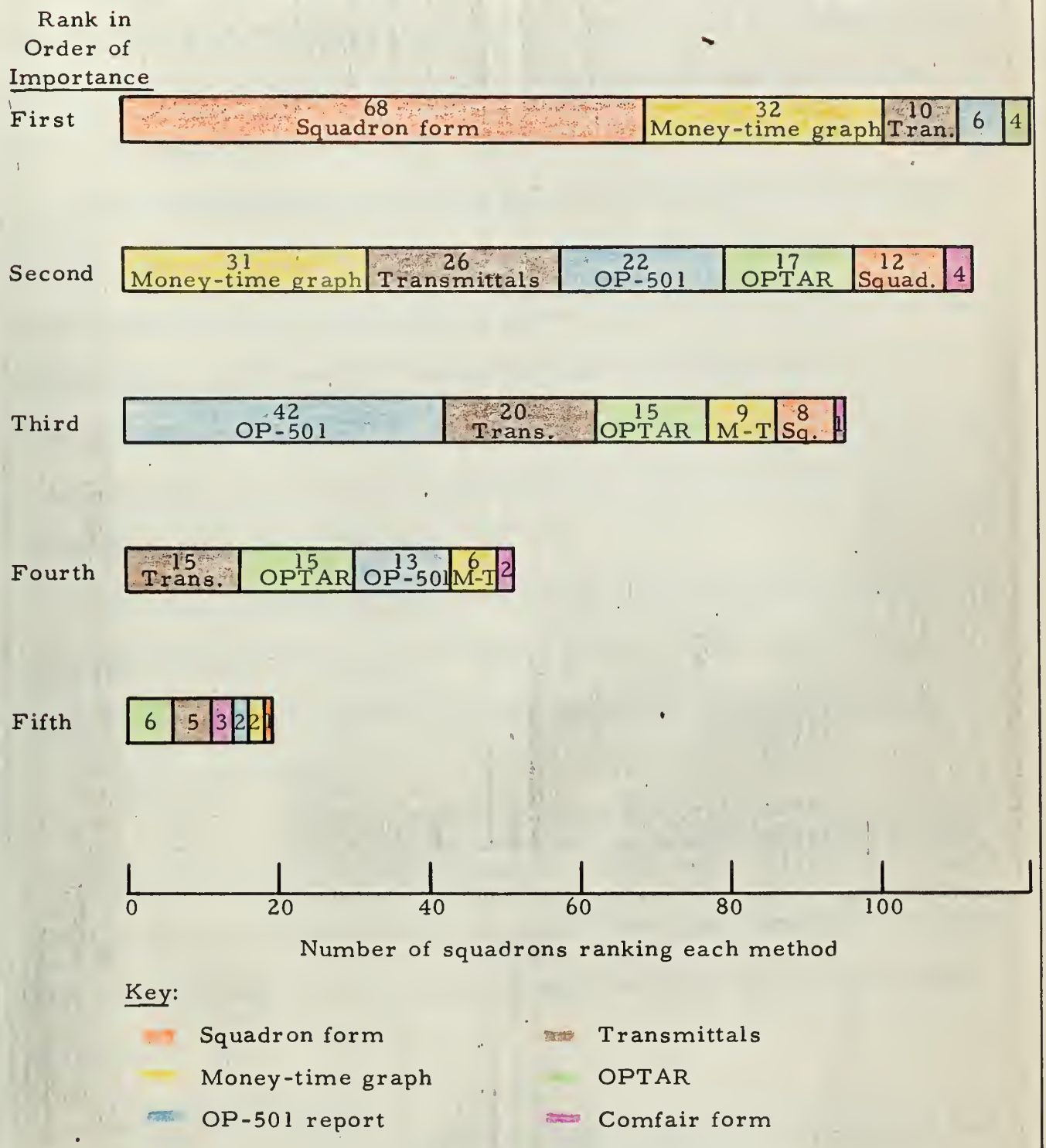


Fig. 4. --Ranking of methods for presenting Bravo information

The correctness of this question was affected by recent changes in instructions which changed several reports. The OP-501 is currently called OPNAV 3710-2, although most squadrons appeared to be familiar with the OP-501 designation. A new report, OPNAV 3710-3, has been added. It is a monthly report, however, and would be of little additional use in keeping the commanding officer informed as it duplicates the information in the semi-monthly 3710-2. These changes would certainly not alter the first two choices and probably would not affect the third or fourth. The ratings are therefore considered an accurate reflection of the current squadron use and opinion of these various means of informing the commanding officer of the Bravo expenditures and balance.

The next question explained the tabulation of the OP-501 report at the Pentagon and asked if the material officer felt "it would be worth the time and effort to send each squadron the information concerning its progress."

Per Cent	Number	
65	80	desired the information
26	32	did not feel the benefit would be worth the cost
9	11	no response.

The squadrons were also asked if they would like to have progress and cost-per-hour information on sister squadrons (squadrons flying the same type aircraft).

Per Cent	Number	
67	82	desired this information on sister squadrons
25	31	did not desire the information
8	10	no response.

Several replies indicated that they computed this information for their own squadron and made an effort to obtain the information (especially cost per hour) of other squadrons on the same base or ship.

The final question requested additional or better information that the squadron would like if the Bravo record-keeping and reporting system was changed. This was an open-end question, but the replies can be grouped in three categories:

Per Cent	Number	
34	42	stated that they desired no changes
29	36	listed desired changes
37	45	made no comments in answer to the question.

Although the question requested changes "to aid you in managing Bravo funds," the majority of the suggestions were designed to ease the reporting task of the squadrons. The material officers were not as concerned about an improved method of managing Bravo funds at the squadron level as they were interested in reducing the number of reports they must make.

The specific suggestions for changes will be discussed and analyzed in Chapters V and VI. A composite picture of the average squadron can be delineated, however, and will be of use in later discussion of these proposed changes. The percentage of squadrons actually represented is shown in parentheses. The average squadron:

Maintains a money-time graph (75%)
Uses a detailed squadron form for internal reporting (70%)
Updates the graph or form and reports the cost per hour semi-monthly (53%)
Does not compute separately the cost per hour of avgas, avlube, and other expenses (64%)

Expresses the money remaining in both dollars and flight hours (62%)

Plans for a zero OPTAR balance at the end of the quarter (39%) and year (45%)

Discusses reduced aircraft operating costs in an officers' meeting less than five times a year (55%)

Uses methods for internal reporting of Bravo funds in the following order of importance:

1. Squadron form (developed by the individual squadron) (73%)
2. Money-time graph (maintained as the squadron desires) (65%)
3. OP-501 Report (currently entitled OPNAV 3710-2) (71%)
4. Transmittals to Fleet Aviation Accounting Office (61%)
5. OPTAR records (46%).

Desires to have the information computed from the OP-501 report concerning squadrons flying the same aircraft (67%)

Is satisfied with the current system and has no suggestions for improvement (71%).

CHAPTER V

IMPROVEMENTS TO PRESENT PROCEDURES

Several changes can be made in the current Bravo reporting system to improve effectiveness at small cost. These are in the areas of internal reporting procedures, operating targets, transmittals, and reports. At this point no arguments will be made to change the squadron accounting and record-keeping system. It has undergone many changes, including a major improvement in July, 1965. The inputs are easily obtained and the system is simple and adequate.

Internal reporting procedures can be improved, however. The practices in the squadrons are extremely varied and some are clearly inadequate for effective financial management. The methods outlined here will be most useful for land-based operations under conditions where the squadron commanding officer has more control over the squadron flight operations and the Bravo expenditures. They will, however, be useful information systems even under conditions where the commanding officer has little control over expenditures.

Money-Time Graph

The principal reporting and control system recommended is a money-time graph. This method provides an easy-to-maintain, visual display of squadron expenditures. When it is superimposed on current flight hour

information the chart provides a quick indication of squadron operations for the squadron commanding officer or operations officer. A suggested chart is shown in Figure 5 and explained below.

The time period covered in the chart is a quarter as the operating target is granted for a quarter's operations. The planned flight hours are indicated by a black line running from zero at the start of the quarter on the left up to the total planned hours on the right. This can be a straight line or be more refined if special operations are planned. In either case, it should realistically portray the expected operations for the quarter.

This same line serves as the Bravo cost line by multiplying the flight hours by a standard cost-per-flight hour. This cost per hour can be the fleet-wide standard for the type of aircraft or the squadron standard from previous quarters. The standard cost should be adjusted for gas and oil price changes and any other expected variations so that it will be the closest possible approximation of actual costs. By multiplying the flight hours on the right side of the chart by the standard cost per hour, the dollar value corresponding to the flight hours is obtained and entered to the right of the flight hours.

The total operating target is indicated by drawing a red line at the dollar value of the money granted. If the squadron received less funds than needed for the projected flight hour program, the red line would quickly show this.

Bravo Fund and Flight Hour Status

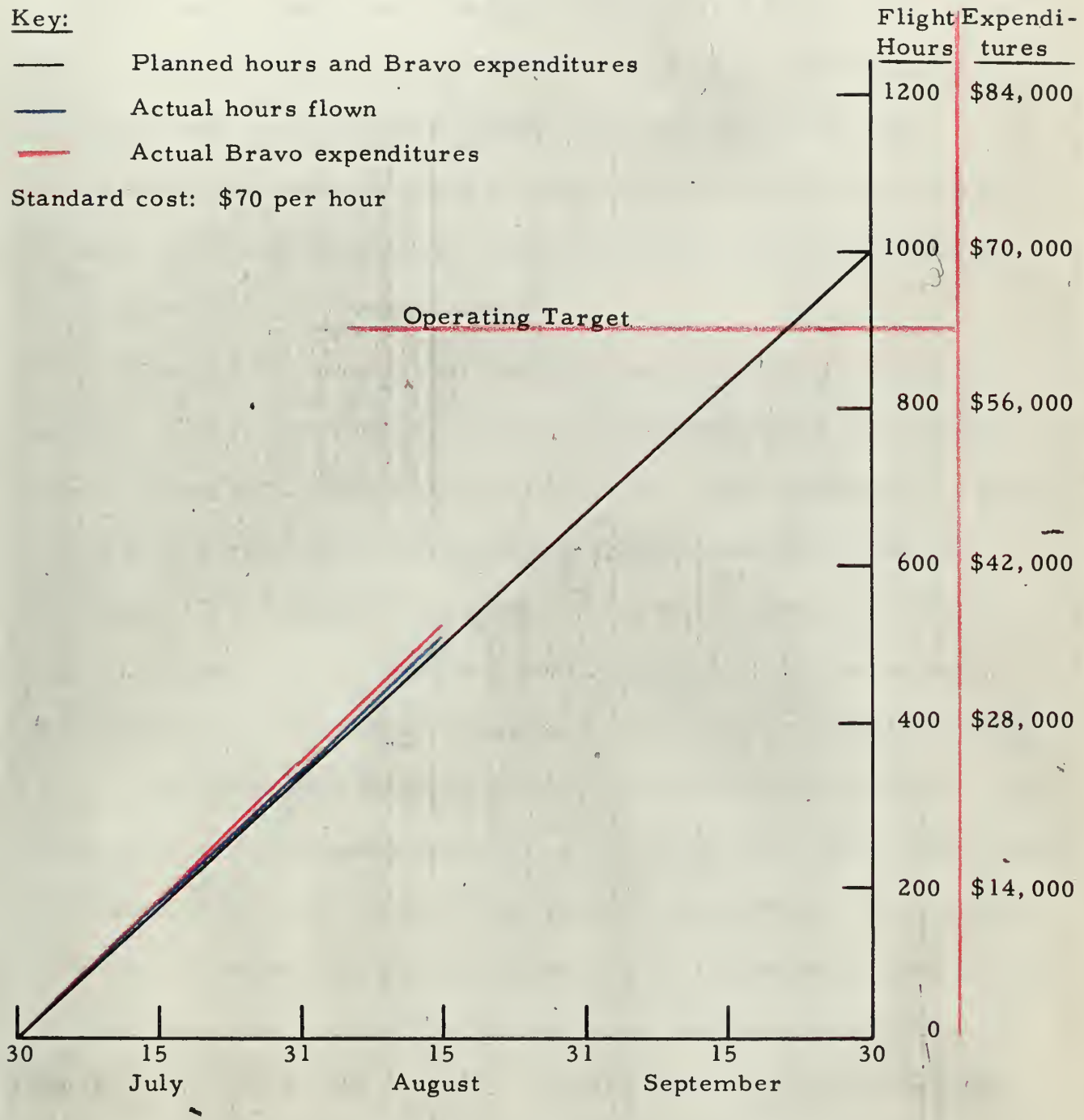


Fig. 5. --Money-time and flight hour graph (mid-quarter)

During the quarter the operations department plots the hours flown in blue. This can be done semi-monthly, weekly, or daily, according to squadron preference. The money expended is plotted in red semi-monthly when the document transmittal and OPNAV 3710-2 are sent. If the squadron is operating at the standard cost per hour, both lines will be the same. A higher-than-projected cost per hour is indicated by a money line above the flight hours line and vice versa. A blue line above the black line indicates flying more hours per day than planned.

Figure 6 is a money-time and flight hours graph at the end of the quarter. The squadron has experienced a higher-than-projected cost per hour and the planned flight hours have increased. This necessitated a request for additional Bravo funds. The granting of these funds (illustrated on September 10) is indicated by drawing a new total operating target line in red and running a new planning line from September 10 and the current expenditure line to the end of the quarter and the new operating target level.

The money-time graph provides the commanding officer with a simple alert signal as he can easily determine if the current rate of flying and Bravo expenditure will exceed the operating target for the quarter. The operations, scheduling, training and other concerned officers can understand and use the information on the graph but they usually do not learn to understand or use the information on a written report. Maintaining a graph in the material office is probably not necessary as few officers see it and the material officer should be familiar with the current status as indicated more accurately

Bravo Fund and Flight Hour Status

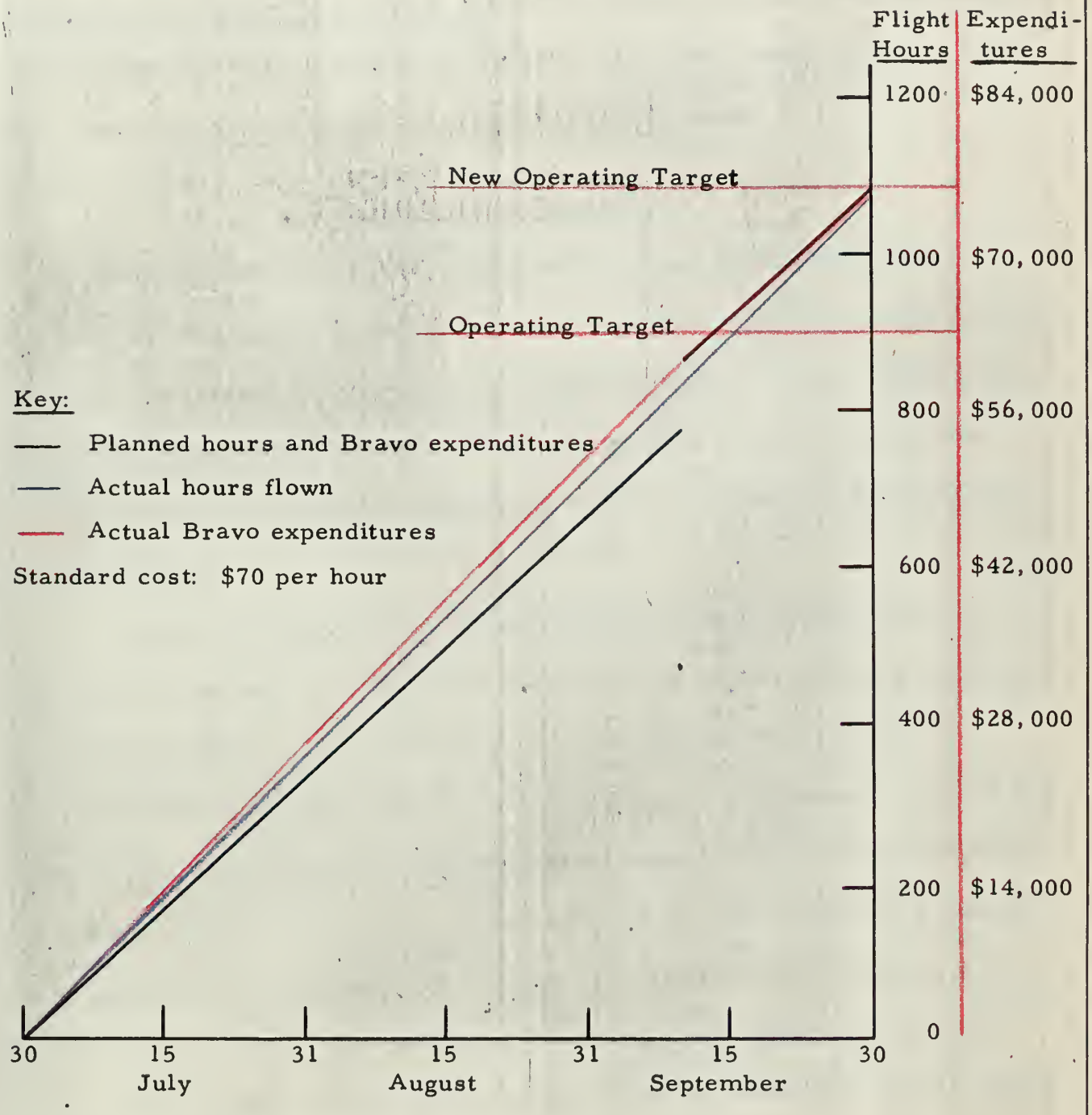


Fig. 6. --Money-time and flight hour graph (end of quarter)

on an internal report of Bravo expenditures.

Other information could be included on the graph, such as the Bravo expenditures in previous quarters of the fiscal year, standard cost per hour, running cost per hour, and gallons per hour rate of fuel usage. Most of these items more properly belong on a separate internal report.

Internal Reporting Form

Fifty-one different forms for reporting Bravo expenditures were returned by the squadrons responding to the questionnaire. The best features of these were combined to produce the form depicted on the succeeding page. This financial summary provides all the information required for external reports and presents detailed information in a format designed for management decisions.

The form is divided into 15-day reporting period, current quarter, an fiscal year sections. The 15-day reporting period section presents information corresponding to the transmittal of documents and the sending of the OPNAV 3710-2 message after the fifteenth and end of each month. This is the control period and space is provided to show avgas and avoil costs and other expenditures separately for two models of aircraft. This could be expanded to accommodate more models of aircraft or be reduced for squadrons operating only one model. The gallons of avgas and avoil consumed per flight hour could also be indicated in this section if the squadron desires to compute these figures.

SQUADRON FINANCIAL SUMMARY

Status as of 2400 _____

Fifteen-Day Reporting Period Status

		(Aircraft Model)	(Aircraft Model)
A.	Obligations this reporting period:		
	1. Avgas and Avoil	$_____	$_____
	2. Other expenditures	$_____	$_____
	3. Total period obligations	$_____	$_____
B.	Proposed flight hours this month	_____ hrs	_____ hrs
C.	Flight hours flown 1-15	_____ hrs	_____ hrs
D.	Flight hours flown 16-end	_____ hrs	_____ hrs
E.	Number of operating aircraft at end of period:	_____	

Current Quarter Status

F.	OPTAR funds available _____ quarter	$_____	_____ hrs
G.	Actual obligations and flight hours to date	$_____	_____ hrs
H.	OPTAR and flight hours remaining (F-G)	$_____	_____ hrs
I.	Cost per hour (G obligations ÷ G hours)	$_____	
J.	Hours available (H OPTAR remaining ÷ I)		_____ hrs

Fiscal Year Status

K.	Annual Planning Figure and flight hours	$_____	_____ hrs
L.	Actual obligations and flight hours to date	$_____	_____ hrs
M.	Annual Planning Figure and hours remaining (K-L)	$_____	_____ hrs
N.	Cost per hour (L obligations ÷ L hours)	$_____	
O.	Hours available M A.P.F. remaining ÷ N)		_____ hrs

Submitted by:

Distribution:
Commanding Officer
Operations Officer
Maintenance Officer
Material File

_____
Material Officer

Fig. 7.--Squadron Financial Summary Report

Line B is the proposed flight hours for the month, and space is provided to show the planned hours for each model of aircraft. The hours flown during the first fifteen days is indicated on line C and the hours flown during the remainder of the month on line D. This provides a comparison of the planned flight hours with the hours actually flown and also provides the information necessary for the OPNAV 3710-2 report. No provision is made for computing cost per hour in this section as it varies widely over a period as short as fifteen days and is not an accurate indicator. Any unusual expenditures would show up under "Other expenditures" (line A-2).

The current quarter section provides information on expenditure of the operating target (OPTAR) which is granted for the quarter's operations. Line F shows the total funds granted and the hours this will provide at the standard cost per hour (the average for all squadrons operating that model of aircraft). Line G is the money actually spent and the hours flown from the beginning of the quarter to 2400 (midnight) of the current reporting period. By subtracting the dollars in line G from line F, the operating target remaining is shown on line H. Subtracting the hours flown (line G) from the hours programmed (line F) leaves the hours remaining in the squadron flight program (line H). Dividing the obligations on line G by the flight hours on that line gives the cost per hour which is entered on line I. Dividing this cost per hour into the operating target remaining shows the hours available with the money remaining at the current cost per hour (line J).

The analysis of the hours in lines H and J is particularly useful in deciding to request more money for the quarter and how much to request. Line H is the hours remaining in the planned flight program and line J the hours the squadrons can fly with the money it has. The difference is the additional hours the squadron needs to fund and the money required is determined by multiplying the additional hours by the cost per hour of line I. Changes in the flying program are also easily handled. At any time the operations or commanding officer determines a revised program the money required can be obtained by subtracting the hours in line J from the hours the squadron needs to fly between the date of the report and the end of the quarter, and multiplying the difference by the cost per hour on line I. In essence, line J indicates the hours that can be flown with the money that is left for the quarter. Any additional hours can be flown at the cost per hour shown in line I.

Fiscal year status gives the position of the squadron in relation to its planned flight hours for the year and its Annual Planning Figure (this is a term used by COMNAVAIRPAC to indicate the total Bravo money that the squadron can expect to receive during the year). Line K shows the Annual Planning Figure and the programmed hours. Line L indicates the money spent and the hours flown. The difference shows the money and hours remaining and the cost per hour and hours available are computed as they were in the current quarter section. In this case the cost per hour will be for the entire fiscal year to date instead of just the quarter.

Most squadrons do not presently show fiscal year status on internal reports, but it is considered valuable for three reasons. First, the obligations for the year (line L) are required for the semi-monthly OPNAV 3710-2 message. Secondly, the yearly cost per hour is a meaningful figure and provides a comparison for the current quarter cost per hour. Thirdly, it is useful for the squadron to view the entire fiscal year program and have a method of measuring results with plans.

This form is a suggested format; squadrons with special needs will want to modify it as necessary. It can be expanded to include information on detachments or special projects. Some commanding officers may desire more information; some less. The important idea is that a comprehensive format be used to convey useful financial information to the person who is making the decisions.

Although designed to be used semi-monthly, concurrent with the sending of the transmittal and OPNAV 3710-2, the internal form could be used only at the end of the month. Its utility is enhanced when used regularly to provide an indication of trends from one reporting period to the next. This is particularly applicable to the running cost per hour for the quarter and fiscal year. Trends can easily be discerned by comparing the figures on current and previous reports.

Operating Targets

Several changes by COMNAVAIRLANT and COMNAVAIRPAC would improve Bravo procedures at the squadron level. The questionnaire replies

indicated that COMNAVAIRPAC's procedure of allowing squadron operating target balances at the end of a quarter to carry forward automatically into the next quarter, within the fiscal year, had ended a great deal of unnecessary expenditures at the end of the quarter to avoid losing squadron Bravo money. It is recommended that COMNAVAIRLANT adopt this procedure to encourage thriftier squadron use of funds.

Operating targets are often not granted to the squadrons until late in the quarter, especially in the first quarter when the Navy appropriations have not been approved by Congress before the fiscal year begins. At the squadron level this means that Bravo records must be kept in negative figures. More important than this minor inconvenience, however, is the fact that the squadrons cannot ask for additional funds as they do not know what their original grant is. In some cases, especially in accelerated flying programs in Southeast Asia, the squadrons have already overexpended their operating target when it is finally granted late in the quarter.

There are logical reasons for not granting operating targets when COMNAVAIRLANT and COMNAVAIRPAC do not have the money to distribute. But the squadrons are flying and spending money regardless, so it seems academic not to give them the operating target. With the money granted, the squadrons could plan better, make requests for additional money when necessary, and avoid negative bookkeeping. Perhaps the grant could be originally made for 90 per cent of the money expected and adjusted when the Bureau of Naval Weapons actually allots the money to COMNAVAIRLANT and

COMNAVAIRPAC. Not giving the operating targets to the squadrons just compounds the problem of late allotments.

Transmittals

Several small changes by the Fleet Aviation Accounting Offices of the Pacific and Atlantic fleets would aid the squadrons. First, the current practice of including credit documents (representing money returned to the squadron for materials that the squadron returns) as minus amounts on the continuous adding machine tape of documents being transmitted sometimes leads to errors in the squadron. Several comments on the questionnaires indicated a source of mistakes could be limited by listing credits separately. Perhaps an ideal solution would be to instruct the squadrons to list all the debit documents (charges against the squadron Bravo), take a subtotal, and then subtract the credit documents and show the total on the same tape. This would list the credits separately and still provide a continuous tape.

A second recommendation would eliminate sending to the squadrons unmatched expenditures (documents from supply that cannot be matched with squadron documents) for small amounts. The value of the time spent in tracing documents is often much greater than the dollar amounts of the unmatched expenditures. If legal and other requirements allow, it might be more economical for COMNAVAIRLANT and COMNAVAIRPAC to absorb these charges.

At the OPNAV level, there is duplication in the information squadrons submit in the OPNAV 3710-2 and 3710-3 reports. Currently, the

OPNAV 3710-2 is a message report sent after the fifteenth and end of each month and the OPNAV 3710-3 is mailed at the end of the month. For squadrons operating only one series of aircraft (a single expenditure account number) the information in the 3710-3 is the sum of the two 3710-2 messages. The reports represent some duplicate reporting for all squadrons. One of the duplicate reports should be eliminated, although they both have certain advantages.

The message report (3710-2) is quicker (and more expensive), contains additional information on operating aircraft (A-status aircraft on board), but contains more errors. The mailed report (3710-3) is more accurate and presents cost data by model of aircraft. Perhaps the eventual solution (beyond the elimination of the 3710-3 for squadrons operating only one model of aircraft) is to transmit the cost data over the same data system now used to collect aircraft flight information and eliminate both reports.

The final change which is still in the minor category concerns the information included in instructions on Bravo accounting and reporting. The great amount of duplication in the instructions issued by NAVCOMPT, BUWEPS, OPNAV, and COMNAVAIRLANT or COMNAVAIRPAC requires a series of revisions every time one element changes. This is particularly true of the Navy Comptroller Manual, which contains detailed discussions of squadron OPTAR records, BUWEPS reporting procedures, OPNAV requirements, and Fleet Aviation Accounting Office procedures which are currently out of date. Duplication and needless revising could be eliminated if each

instruction included only the information needed to accomplish a specific purpose and did not repeat information in other instructions.

Failing this, the squadrons should be relieved of the problems of duplication by requiring them to maintain only one or two instructions that contain all required information. The Financial Regulation Instructions published by COMNAVAIRPAC and COMNAVAIRLANT are designed to accomplish this and could be expanded so that they contain all the information the squadron needs. Duplication and differences in instructions would still exist, but the operating forces would not be involved as they could rely on the Financial Regulations to reflect the current correct procedures.

In summary, the minor changes suggested are:

Squadron:

Maintain a standard money-time and flight hours graph.

Adopt a comprehensive form for internal financial management.

COMNAVAIRLANT and COMNAVAIRPAC:

Automatically carry over squadron operating target balances from quarter to quarter within the fiscal year.

Grant operating targets to squadrons before start of quarter even if money is not allotted from the Bureau of Naval Weapons.

Separate credit documents on transmittal tapes.

Investigate cost-effectiveness of requiring squadrons to reconcile small dollar unmatched expenditures.

Office of Chief of Naval Operations:

Eliminate duplication of 3710-2 and 3710-3 reports for squadrons operating one model of aircraft.

Navy Comptroller and others:

> Avoid duplication of constantly changing information in writing instructions by not repeating items covered in other instructions.

This chapter has suggested improvements to the current Bravo procedures. The following chapter will discuss major changes and present the elements of a system to determine the total cost of squadron operations.

CHAPTER VI

AN INTEGRATED MANAGEMENT SYSTEM

The most obvious, and the most important, change in Bravo procedures is to terminate Bravo allotments and cease holding squadrons accountable for the money they spend for gas and oil. This idea has many advocates and a great deal of merit. The granting of Bravo allotments to squadron commanders violates the concept of authority commensurate with accountability. A squadron commanding officer, especially aboard a carrier, does not have the authority to decide when his squadron will fly, or what type of mission will be flown, or even what the fuel load will be. No commanding officer can decide what type of plane his squadron will fly, or what missions he will train for. In short, a commanding officer can control neither the rate nor the amount of squadron Bravo expenditures.

This overstates the case as there is variation in the control of Bravo expenditures depending on the type of squadron. It is estimated that a commanding officer of a fighter or attack squadron embarked in a carrier can control less than 10 per cent[1] of his Bravo expenses (mainly office supplies and flight clothing as he has little control over flying). However, a commanding officer of a patrol squadron can control an estimated 20 per cent or more

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[1] Percentage estimates are based on comments received with the questionnaires.

of his Bravo expenses. The pace of flying can be varied somewhat at his discretion (most of patrol squadron flying is training which the commanding officer can schedule as he desires). Patrol aircraft engines can also be regulated for more efficient fuel consumption if the pilots are so motivated. This basic difference among types of squadrons must be considered when designing control systems. It is convenient to consider all Navy aviation squadrons as one group, but not always valid.

Current Bravo allotment procedures violate another vital concept: the idea that dollar management is an excellent method of control until one is being shot at; then one is on a non-dollar economy and other methods of control are better.[2] Or, more directly, does the Navy want a squadron commanding officer in Southeast Asia to be concerned with saving money or destroying the enemy? The answer seems obvious. But the question is harder when the squadron is not fighting a war. Does the Navy want the commanding officer to manage the squadron with financial controls; or direct his energy toward training and readiness of the squadron with little or no emphasis on costs? This is a philosophical question which the Navy has not answered.

The failure of the Navy to answer this financial management question has led to some anomalies. Aviation squadrons are accountable for fuel expenditures while ships are given fuel on an open allotment. But ships buy

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[2]Vice Admiral Lot Ensley, Deputy Chief of Naval Operations (Logistics), in a speech before the Navy Graduate Financial Management Program class, The George Washington University, on March 14, 1966.

most repair parts and housekeeping supplies out of their operating target while squadrons are provided these items by the station at no cost. And, within aviation, the Bravo allotment represents a very small fraction of the total cost of operating a squadron (less than 4 per cent in patrol squadrons). Why hold the commanding officer accountable for Bravo expenses and not the other costs?

At least one current project would remove all dollar accounting responsibility from the operating forces. This is the Fleet Logistics Support Improvement Program which is designed to move all dollar accounting record from ships (and, by implication, aviation squadrons) to shore-based data-processing facilities.

The Naval Aviation Maintenance and Material Management Program (abbreviated "3-M") accomplishes part of this objective although it does not deal with Bravo funds or accounting. This recent Navy program is concerned with material support and flight hour reporting only. However, its Maintenance Data Collection System is defined in the 3-M Manual as a Maintenance and Material Management Control and Information System.[3]

Specifically, weapons system costing is accomplished at a central ADP facility by combining maintenance source documents for manhours and material (submitted by the squadron or station maintenance department) and

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[3]Department of the Navy, Office of the Chief of Naval Operations, Naval Aviation Maintenance and Material Management Manual (CNO, OP-43C, Ser 839P43, June 4, 1965), p. I-2.

the material requisition documents (submitted by station supply) to obtain the cost. These costs are directly related to weapon (aircraft) systems and the effectiveness of various elements of maintenance organizations.[4] This is a system, apart from Bravo funding and accounting, which is collecting costs of aircraft squadrons. But the results are not intended to aid squadron commanding officers so much as to provide higher levels of command with factual information for management decisions.

There is definitely another side to the question of financial management in aviation squadrons, however. Many people, schooled in non-military business methods, feel it is ridiculous for any manager (including a squadron commanding officer) not to know his personnel costs, maintenance costs, production costs, and capital expenditures. A first step toward responsibility is an awareness of costs, and it is important for naval officers to develop financial responsibility early in their careers. A demonstration of this belief in the military is the stenciling of original cost on major pieces of equipment. If we believe in making our enlisted men aware of costs, why do we fail to provide commanding officers with cost information?

One reason commanding officers have not received cost information is that the Navy simply does not know what the total cost is to operate a ship or an aircraft squadron. Funding is so segregated by different appropriations, various bureaus, and separate chains of financial support that it is nearly impossible to collect a total cost figure. The business concept of

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[4] Ibid., p. I-8.

responsibility centers, with freedom to decide what costs to incur, and promotion based in part on how well an officer manages costs, does not exist in the Navy.[5]

The tardiness of the military in adopting business methods of managing finances was deplored by Dr. Anthony in the article from The Federal Accountant quoted at the beginning of this paper. And, in his ten months as Assistant Secretary of Defense (Comptroller), Dr. Anthony has worked to design and implement a management control system. Writing in the January issue of The Armed Forces Comptroller, he describes the system:

> The system focuses on the manager who has a job to do, and who uses resources in doing this job. The system should aid and motivate this manager to do his job as well as possible and to use resources as efficiently as possible. It should report his accomplishments and his consumption of resources compared with planned accomplishments and planned consumption, so that corrective action can be taken as required. And it should provide information that is useful in making plans and budgets. . . .
>
> The operating system will be focused on the accomplishments (i. e., outputs) of these responsibility centers and on the resources used by them (i. e., costs). There will be a budget for each mission unit /i. e., aircraft squadron/, showing the total costs necessary to accomplish its mission, including the cost of services furnished by service units. . . .
>
> In order to make the transition to such a system three changes are necessary:
>
> 1. The account structure must be revised. This is now in process.
> 2. There must be a device for including the cost of military personnel in responsibility centers, while at the same time retaining the integrity of the Military Personnel appropriations. This device will be the standard cost.
> 3. There must be a device for holding costs in suspense between the time and place of obligation and the time and place of consumption. This device will be, essentially, a working capital mechanism.

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[5] Robert N. Anthony, "New Frontiers in Defense Financial Management," The Federal Accountant, June, 1962, p. 14.

> The advantages of communicating on a single wave length--costs structured in terms of organizations and program elements--instead of the heterogeneous program, budgeting, and accounting wave lengths, are obvious. But the system has, I think, more important advantages than this for management. By focusing on the job to be done and the total resources used in doing the job, it permits and encourages the operating manager . . . to make better decisions, and gives him more flexibility in the management of his resources.[6]

This proposed management control system, which has received the more acceptable title of Resource Management System, has implications more far-reaching than any of the Navy programs. It is a Department of Defense program with the full backing of Secretary McNamara. And, like all of the Secretary's changes, it will be implemented quickly and completely. The total cost of new weapons systems has been estimated in cost-effectiveness studies since 1961. A management device which will provide the total cost of present weapons systems is long overdue.

Two counter-proposals emerge from these changes. Some programs are designed to eliminate Bravo allotments and accounting in the squadrons, other programs are designed to determine total costs of operating a squadron and to increase accountability of commanding officers. They all have merit, but seem incompatible. Hopefully, they are not.

The policy of Dr. Anthony is to make the individual commander aware of, and responsible for, the costs of operating his unit. This does not necessarily mean that the collection and accounting of these costs must be

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[6]Robert N. Anthony, "What's Ahead," The Armed Forces Comptroller, January, 1966, p. 5.

accomplished within the unit. In fact, with the expanded use of automatic data processing equipment, this accounting can be more efficiently and accurately accomplished at central locations.

Specific recommendations involve both the reduction of accounting at the squadron level and an increase in the financial information provided to commanders. First, the system of Bravo allotments, record-keeping, and reporting should be eliminated at the squadron level. The squadrons would receive an annual planning figure and quarterly grants in the form of flight hours rather than dollars. A flight hour requirement for training in each type of aircraft is the basis for the dollar budget when it is originally developed by COMNAVAIRLANT and COMNAVAIRPAC, BUWEPS, and OPNAV. The number of hours programmed for each squadron is already determined in developing the dollar budget and it would involve no additional effort to make the squadron grant in hours rather than dollars.

A principal objection to this proposal may be that it deprives the commanding officer of the little flexibility he now has in flight operations. Presently, he can cease purchasing office supplies or flight clothing and use this money for additional flight hours. However, this procedure ignores the increased total cost to the Navy of additional flight hours. The Bravo money represents less than a tenth of the additional expense for repair parts and maintenance incurred by flying additional hours. If grants were made to squadrons in hours, other expenses would tend to be more stable and easier to program.

A more important benefit would accrue from flight hours instead of dollar grants. The focus would change from spending (or saving) money to using (or conserving) flight hours. The ultimate purpose of dollar expenditures is to achieve a high state of combat readiness. This is obtained by flight hours expended in useful training. Although a squadron commanding officer could admittedly waste flight hours just as surely as he might waste money, the emphasis on flight hours would hopefully urge him to use his allotted flight hours efficiently. And he can continue to be encouraged to operate efficiently from a monetary standpoint, as will be explained later.

With no allotment, the necessity of accounting in the squadron would be eliminated. Formal accounting is now accomplished at the two Fleet Aviation Accounting Offices and this satisfies all legal requirements. The requirement on the squadron to forward copies of requisition documents could also be eliminated. The squadron presently transmits to the Fleet Aviation Accounting Office documents representing a charge against the Bravo allotment (called NSA charges as they buy parts from the Navy Stock Accounts). But the squadron does not transmit documents or maintain records or report any expenditures made against the Appropriations Purchase Account (APA charges). Station supply departments currently transmit both NSA charge documents and APA charge documents and these documents alone can be used to effect the formal accounting necessary.

Arguments which support the existence of two systems with different requirements for reporting and varying degrees of control are indicative of

the short-range outlook of present methods which hold a commanding officer more accountable for relatively small NSA expenditures than for large APA expenditures. The anomaly of these dual systems is evident, considering the common source of the money, the taxpayer to whom the Navy is ultimately responsible.

The squadrons would still be required to transmit documents of purchases at commercial or foreign government fields. This is necessary as the supplier copies of these documents require months to be processed between governments and the money must be obligated. These represent a very small percentage of the purchases of most squadrons.

Monetary reporting by the squadron would cease to be necessary and the NSA cost information needed for financial decisions could be provided by the Fleet Aviation Accounting Offices. APA charges for maintenance parts will be collected through the Standard Navy Material and Maintenance Management Program as it is currently being implemented. Expenses of military personnel and services provided by other units will be provided by the Resource Management System which is now being put into effect. Through these three systems the total costs of operating a squadron will be available. It is important that this information be combined and presented in a form that will facilitate decision making.

It is equally important that this total cost information be distributed not only to COMNAVAIRLANT, COMNAVAIRPAC, CNO, and BUWEPS, but to the squadrons as well. One advantage of squadron distribution is the

opportunity for the commanding officer and other interested officers to audit the accuracy of the information. This principle is now being used in the new Aircraft Accounting System. Information on aircraft flight time is being submitted electronically by the squadrons after each flight instead of mailing a monthly report. But the squadrons receive a machine tabulation of the information at the end of each month for accuracy verification. A similar system is proposed for squadron expenses, with the individual documents processed by the station supply department and the Fleet Aviation Accounting Office serving as the inputs and the squadrons receiving a machine tabulation at the end of each month. The individual squadrons are in the best position to know if unusual expenses are correct and to recognize trends.

The ability of a commanding officer to take action based on the financial reports he receives would depend upon policies of higher commands. As more effective financial information is generated throughout the Navy, a greater reliance on financial control may evolve. Two factors are necessary: giving squadron commanding officers a greater choice of resources to accomplish a mission; and an increased requirement on officers to be good financial managers, including a greater indication of their abilities in this area on fitness reports.

The idea of giving commanding officers wide latitude in resources available to accomplish a mission is anathema to some senior Navy officers. They rebel at the thought of a squadron commander being able to trade several men for more Bravo money or some labor-saving equipment. This has led

most commanding officers to consider manpower a fixed cost or, even worse, not a cost at all as the men are in the squadron even if the commander does not need them. In practice, commanders almost universally plead for more men instead of searching for ways to cut manpower requirements as is common in private business.

The idea that manpower is not a cost pervades other areas where the commanding officer does not have a choice of what resources he can use and cannot make trade-offs between resources. With a management system that provides an accurate measurement of the total cost of operating a squadron, commanders should be given more opportunity to reduce the total cost by a judicious balance of all resources to obtain the best results. The ability to make trade-offs at the operational level and increase management ability is an objective of the DOD Resource Management System.[7]

The present lack of emphasis on financial responsibility of junior officers in the Navy was obvious in comments on the questionnaires, in regular reports of wasteful expenditures in aviation squadrons throughout the Navy, and in selection of officers for commanding officer billets whose concept of financial management is to use up all the operating target so that the squadron will receive the full allotment next quarter. High-ranking officers in the Navy firmly believe in financial responsibility, but this feeling does not pervade the lower ranks. A new system with better financial information

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[7]Rear Admiral M. A. Hirsch, Deputy Comptroller of the Navy, in a speech before the Navy Graduate Financial Management program class on March 7, 1966.

will not change attitudes. But it will provide financial information to commanders at all levels. Commanders must provide the strong leadership which, combined with factual information, can make financial responsibility a vital part of the entire Navy.

CHAPTER VII

THE IMPORTANCE OF FINANCIAL MANAGEMENT

This report has dealt almost entirely with measuring the costs of operating an aircraft squadron with slight consideration of the results obtained. Although intentional, this approach evades the principal difference between military and commercial activities. While financial records and reports provide a fairly complete indication of results (profits) in civilian endeavors, an entirely separate method is necessary to measure results in military activities.

An attempt to measure both costs and results with a financial tool is the calculation of average cost per flight hour. But this indicates results only vaguely. Flight hours may represent a bombing mission over North Vietnam, training for a new pilot, or a pleasant trip to a pilot's home town. Obviously, these do not all have the same benefit to the nation or indicate equal results. A more intricate measure than flight hours is needed to indicate the value received for money spent.

Results are commonly measured in a squadron by the term "readiness." This is a percentage evaluation of a squadron's effectiveness or ability to accomplish its mission. It is a measurement infinitely more difficult and less precise than the determination of costs. Readiness is assessed primarily on the basis of competitive exercises, the annual operational

readiness inspection, the annual administrative/material inspection, the availability of mission-ready aircraft throughout the year, and the ability of individual pilots or crews as measured by the training completed. A detailed analysis of the concept of readiness is beyond the scope of this paper, but two points will be discussed. This is the relationship of costs to training and costs to readiness.

The measurement of training accomplished can be fairly precise. Records of squadron training are maintained for each pilot and flight crew. Squadrons also report to higher commands the number of flight hours of training accomplished. A valid comparison could be obtained by dividing the direct cost of a flight (fuel, oil, manpower, ordnance) by the hours of specific training accomplished. These direct costs could be accumulated by entering the gallons of fuel and oil used, the type and quantity of ordnance expended, and the rank or rate and time involved of personnel directly concerned with the flight on the data card used to transmit flight and aircraft information to the aircraft accounting system. The computer can be programmed to translate this information into dollars (using the standard rates by pay grade of the Resource Management System for personnel costing).

Within a squadron, the commanding officer can use these costs to measure the cost effectiveness of different types of training. Although this would be a crude tool at the squadron level, it would be an improvement over the current situation where the commander has no information regarding the cost per hour of various training. Although operational requirements dictate

the minimum training necessary, additional training could be scheduled to obtain the maximum training for the dollar. If $1,000 purchased twenty hours of landing practice or thirty hours of instrument flight training, the commander might want to choose the instrument training. Without knowledge of the costs involved in specific training, he could not make a rational choice.

Relating costs to training at the squadron level is a logical extension of budgetary procedures that relate money requests to minimum pilot training requirements. The training officer in a squadron should make full use of cost information supplied by the material control officer to recommend the most effective training schedule.

Relating training to costs is effective as they both can be measured easily and accurately. However, training is only a part of readiness. Readiness is a result of training but it is not directly related as training may or may not be productive. Readiness exercises and other devices measure not only how much training has been accomplished, but how good it has been. Although difficult to measure, values of readiness are determined both within the squadron and for the squadron as a unit.

The measurement of readiness does provide an indication of results that financial records cannot provide in the military. Unfortunately, costs are totally excluded when measuring readiness and little attempt is made to relate the two later. Cost and readiness must be examined together to determine the cost effectiveness of pilots, crews, aircraft, and squadrons. The total cost for an individual pilot or crew to achieve a certain level of

readiness would provide an excellent standard for comparison. Again, this would require the accumulation of costs for each flight to assign costs to individual pilots or crews. These costs could be divided by the percentage of readiness to obtain a cost of readiness. Knowing the cost of readiness for individual pilots and crews, the commander can exercise the control necessary to achieve a high state of readiness at minimum cost for the squadron. Crews utilizing resources fully to achieve readiness can be congratulated; crews with a high cost of readiness can be prodded to use their resources more productively. This alone would make every pilot and crew member more cost-conscious than any "economy drive."

Comparisons among squadrons flying the same model of aircraft can be made with the cost and readiness information presently available. Total Bravo costs of a squadron during its training cycle between deployments can be compared with the readiness level the squadron achieves. As other costs become available, these can be added to obtain a total cost of readiness for each squadron.

This is a very brief explanation of several ways cost information can provide improved control to the commander. The collection of all pertinent costs should be intensely investigated and a complete paper could be written on determining the costs of each element, such as spare parts, utilities, training of pilots, crew members, and maintenance personnel, flight safety, capital investment, and salaries. Other studies are necessary to provide improved measures of readiness or effectiveness of aircraft squadrons.

And detailed procedures for assessing costs in relation to readiness must be developed.

The increased use of good financial information advocated in this paper will mean improved control for Navy commanders. It will not increase their command power based on the authority of rank or ability. Command ability is extremely important to the Navy, but often management ability is equally vital. Management, or control, introduces the ideas of efficiency and a standard of comparison for measuring results.

Financial management is an essential part of control. Almost all the decisions made by the Secretary of Defense are control, not command, decisions that consider the cost as well as the effectiveness of a proposal. The Navy must also exercise control throughout the fleet. Control can be effective only when it is based on standards developed with accurate financial information. The return to the Navy will be increased effectiveness and greater ability to serve our Country well.

APPENDIX A

QUESTIONNAIRE

TO MATERIAL OFFICERS OF NAVY AVIATION SQUADRONS:

Your current instructions on expenditure and accounting of aircraft operating funds or "Bravo Money" have been designed to provide information to OpNav and the major commands. These instructions provide for transmitting total data on past expenditures so decisions can be made at high levels concerning current funding requirements. At the squadron level, where the money is actually spent, past total data is not sufficient information to assess squadron Bravo Money requirements. Detailed past expenditures and future predictions are necessary for intelligent financial management.

As part of my course work at the Navy Graduate Financial Management Program at George Washington University, I am designing a system for managing Bravo Funds that will primarily aid the squadron. This system will be based on applicable instructions issued by CNO and major commands and interviews with officers who administer the Navy flight hour program and tabulate the Op-501 reports. Principally, the system will be based on the needs of aviation squadrons as expressed in answers to the enclosed questionnaire.

The purpose of this questionnaire is to determine squadron practices and to provide a forum for presenting improvements. The value of this study will be greatly increased if respondents provide.

1. A candid answer to every question
2. Prompt consideration.

The results of the questionnaire will be strictly anonymous. It is designed to be answered in a few minutes. Your response is necessary to provide representation of each type of Navy squadron.

Sincerely,

SQUADRON QUESTIONNAIRE

I. Internal Bravo Fund Reporting

1. Do you maintain a money-time graph in the material office? yes_____no_____. In the commanding officer's office? yes_____no_____.

2. Is a detailed form used to report the status of Bravo Funds internally? yes_____no_____.

3. If a detailed form is used internally, who receives copies? CO_____XO_____Operations_____Maintenance_____Maintenance Control _____Other_____.

4. If a money-time graph or detailed form is used, is it revised weekly?_____monthly?_____when the OP-501 is prepared?_____.

5. Is the money remaining expressed in dollars?_____flight hours?_____both?_____.

6. Is the commanding officer informed of the current cost per hour weekly?_____when the OP-501 is prepared?_____monthly?_____ quarterly?_____not at all?_____.

7. If the cost per hour is computed, is it broken down into avgas, avlube, and other costs? yes_____no_____.

8. Does your commanding officer require a breakdown of "other" costs into flight equipment, hand tools, office supplies, etc.? yes_____ no_____.

9. Is the method of reporting Bravo expenditures to your commanding officer closely related to OP-501, OpTar, and other external reports? yes_____no_____.

10. How much unobligated money do you strive to have at the end of a quarter? 0_____$100_____$200_____$500_____more_____(specify). At the end of the fiscal year? 0_____$100_____$200_____$500_____more_____(specify).

11. If answer to question 10 is less than $100, are stubs actually typed or is money only obligated on the books? Stubs typed _____Not typed_____.

II. Squadron Interest in Bravo Expenditures

1. How many times has the subject of reduced aircraft operating costs been mentioned in all officers' meetings the past year? 0_____2_____4_____ 6_____10_____15_____.

2. Who promulgated the cost reduction information? CO_____XO_____ Operations Officer_____Maintenance Officer_____Material Officer_____ Other_____. (Indicate number of times each spoke on cost reduction.)

3. Would you describe your commanding officer's interest in Bravo expenditures as slight?_____moderate_____great_____.

4. Does your aircraft maintenance officer understand the Bravo fund accounting and reporting procedures? yes_____no_____.

III. Forms Used for Internal Reporting

1. Many squadrons have devised special forms for internal Bravo reporting. If you use a Squadron or Comfair designed form, please enclose a copy and explain how it is filled out and used.

2. What do you feel is the principal method used to inform your commanding officer of Bravo expenditures and balance? (Place a figure 1 next to the most important and continue numbering the others in order of importance. Omit numbering any methods you do not use.)

Money-time graph _____ Squadron form _____
OP-501 _____ Comfair form _____
OpTar _____ Other _____ (describe)

Transmittals to Fleet Accounting Office _____

3. The OP-501 report is currently machine-tabulated monthly at the Pentagon. For each squadron the programmed hours, actual hours, programmed money, actual money, programmed cost per hour, actual cost per hour, and utility (hours per crew per month) are computed and this information is sent to Air Pac, Air Lant, and used in OpNav for management and justification of funds. Do you feel it would be worth the cost and effort to send each squadron the information concerning its progress? yes____no____. Would you like to have this information on sister squadrons for comparison? yes____no____.

4. If the complete Bravo record-keeping and reporting system were changed, what additional or better information would you desire to aid you in managing Bravo funds?

Note: The results of several questions were not included in the text; these questions and results are:

I - 3. If a detailed form is used internally, who receives copies?

Commanding Officer	82
Executive Officer	57
Operations Officer	67
Maintenance Officer	63
Maintenance Control	9
Others (Squadron Duty Officer, Flight Officer)	5

II - 4. Does your aircraft maintenance officer understand the Bravo fund accounting and reporting procedures?

Yes	102
No	17

APPENDIX B

SQUADRON INTERNAL REPORTING FORMS

OLD FORM

SAMPLE

Sent twice weekly

Revised 8/65

PATROL SQUADRON THIRTY, DETACHMENT ALFA
NAVAL AIR STATION, PATUXENT RIVER, MD.

DATE _____

From: Material Officer
To: Officer in Charge

Subj: Report of Bravo Allotment and Cost Analysis

1. As of 0800 this date, the status of Bravo expenditures and the analysis of current cost are as follows:

A. Bravo Allotment (Based upon $ Note 1 per/hr.)
(1) Total allocated for Month. $_____
(2) Additions or Deletions Note 2 $_____

TOTAL $_____

(3) Expenditures to date $_____

(4) Balance available for operations $_____

B. Cost Analysis
(1) Flight hours to date this month _____
(2) Cost per hour
(a) Fuel/Oil $_____
(b) Other $_____
(c) Total $_____
(3) Hours remaining at above cost _____

C. Total OPTAR for this Quarter $_____

D. Proposed Flight hours this month Note 3

_____
MATERIAL OFFICER

Copy to:
AOINC
Maintenance Officer
Operations Officer

NOTES:
1. Determined by dividing Available money for quarter by flight hours desired.
2. Carried over from previous month, if applicable
3. Comparison of B(1) + B(3) and D. shows excess or deficiency of funds for month.

$$B(3) = \frac{A.(4)}{B(2)}$$

_____
DATE

VS- DAILY OPTAR REPORT

	A. HOURS	B. TOTAL OPTAR
TOTAL OBLIGATIONS FOR QUARTER		C.
UNOBLIGATED BALANCE		D.

****

TOTAL FLIGHT HOURS _____ / _____
QUARTER E. MONTHLY F.

COST PER HOUR G.

FLIGHT HOURS REMAINING @ $ H.

OPTAR HOURS REMAINING J.

****

KEY

B-C=D H=D

G= D/E A=E+J

Amount of money granted per flight hour

_____
MATERIAL OFFICER

6ND COMFAIR JAX 4423-A (12-64)

VP-18 MATERIAL FORM NO. 4

DATE: AS OF 0800

	PATROL SQUADRON 18		DETACHMENT		TOTAL THRU
	THRU	THRU	THRU	THRU	
OPTAR ASSIGNED					
AMOUNT ADDED OR WITHDRAWN					
BALANCE					
UNFILLED ORDERS CARRIED FORWARD					
OPTAR REPROGRAMMED					
TOTAL OPTAR					
BALANCE FROM LAST REPORT					
EXPENDITURES: AVGAS					
AVLUBE					
MISCELLANEOUS					
TOTAL EXPENDITURES					
BALANCE					
UNFILLED ORDERS					
BALANCE AVAIL. FOR OPS					
FLIGHT HOUR INFORMATION: HOURS ALLOCATED FOR QTR					
HRS FLOWN TO DATE					
HOURS REMAINING FOR QTR					
COST GAS & OIL PER HR					
TOTAL COST PER HR					
COST ALLOCATED PER HR					
EST. COST PER HOUR REMAINING					

Form used 1 Jan 66 prior to (would require unfilled orders sections to be removed for use now)

DIST:
Commanding Officer (1)
Operations Officer (1)
Maintenance Officer (1)
OinC Detachment (1)
Material File (1)

REMARKS:

SUBMITTED

MATERIAL OFFICER

APPENDIX C

SQUADRON RECOMMENDATIONS

APPENDIX C

Suggestions for improvement of Bravo procedures received in reply to squadron questionnaires:

1. International credit card vice flight packet for purchases away from home base.

2. A single report to central point with distribution instead of multiple reports from squadron.

3. OPNAV 3710-2 and OPNAV 3710-1 involves duplication for squadrons operating only one type of aircraft.

4. Training safety is more important than Bravo economy.

5. Squadrons have no flexibility in Bravo expenditures.

6. Provide a detailed listing of what constitutes correct Bravo charges.

7. Squadron must know quarterly OPTAR to request additional funds; late OPTAR grants hinder effective planning.

8. Provide cost per hour divided into shipboard and shore-based operations.

9. Eliminate squadron Bravo funding, record keeping, and reporting.

10. Disseminate specific operating methods of low-cost squadrons.

11. Eliminate unmatched expenditures for less than $100; waste of time and proves little.

12. Provide more concrete guidelines for preparing flight packets.

13. Economy measures by material officer are fruitless in a squadron where the commanding officer is intent on "burning up every penny."

14. Distribution of cost-per-hour information among squadrons flying the same type of aircraft would stimulate cost reduction.

15. Consolidate all pertinent Bravo instructions into one manual.

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